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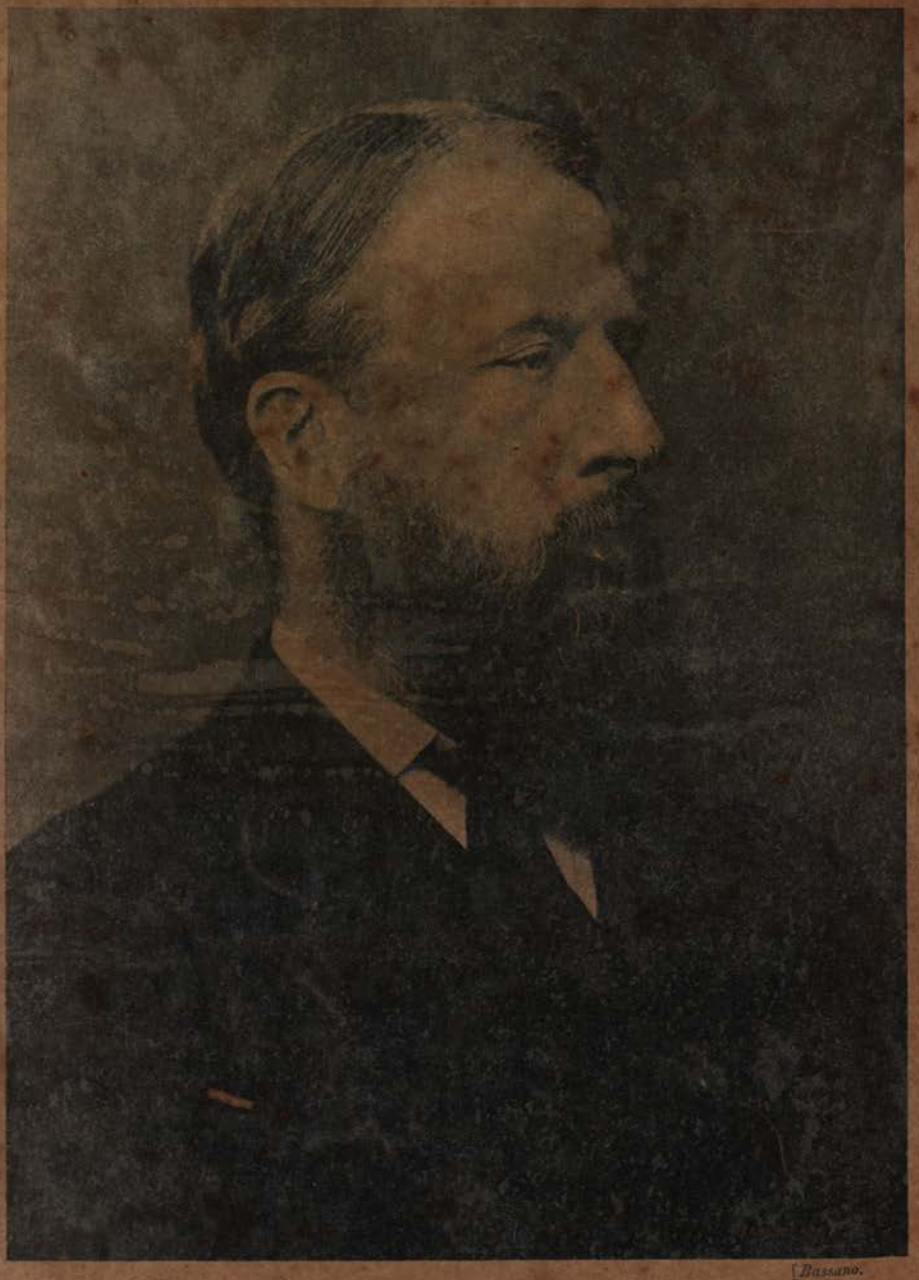
THE BOOK OF

THE CHEAP COTTAGES EXHIBITION.



[Bassano.

THE DUKE OF DEVONSHIRE,

Who opens the Exhibition and has given his support to the project from the beginning.

THE BOOK

OF THE

CHEAP COTTAGES EXHIBITION,

CONTAINING

A COMPLETE CATALOGUE

WITH PLANS,

AND ARTICLES ON THE

ORIGIN OF THE EXHIBITION AND GARDEN CITY,

AND COTTAGE BUILDING PROBLEMS.

Published for the Committee by
"THE COUNTY GENTLEMAN AND LAND AND WATER," LD.
4 & 5, DEAN STREET, HOLBORN, W.C.
1905.

The Duke of Devonshire on the Exhibition.

Extract from a speech made to the Bakewell Farmers' Club, Dec. 5th.

THE old cottages, which were supposed to be good enough for the agricultural labourer in past times, had either decayed or been condemned as unsuitable for human habitation under the new sanitary regulations, and as these cottages had disappeared they had not been replaced. This was chiefly in consequence of the great cost of the building of new cottages. Under the existing building by-laws in most parts of the country a cottage for an agricultural labourer could not be now built for less than £250 to £300. In order to secure an economical return for an expenditure on a cottage of £250 or £300, a rent of something like £12 or £15 a year would be necessary, a rent which it was obviously impossible for an agricultural labourer to pay. The question, therefore, arose whether it was absolutely necessary that the cottage of an agricultural labourer should cost as large a sum as £250 or £300, and a movement, he was glad to see, had very recently been initiated to ascertain whether it was not possible that the cost of building cottages—probably not very luxurious or beautiful, but still decent sanitary cottages—might not be materially reduced. What was alleged was that, owing to the unnecessary and too costly requirements of the present building by-laws, the discoveries of science and the ingenuity of our architects and builders had not been sufficiently directed towards investigating the possibility of cheapening the cost of materials or the cost of building these houses, and ascertaining whether it might not be possible materially to decrease that cost. The movement he spoke of had been initiated in the first place for revising what appeared to be the unnecessary stringency of the by-laws, and in the next place for holding an exhibition in the neighbourhood of London, at which builders and architects would be invited to exhibit in competition with each other cottages fit for the proper accommodation of an agricultural labourer and his family, that should have been produced at a cost not exceeding £150. It was not for him to say whether it was possible for this to be accomplished or not, but considering the great desirability of putting a check, if any check could be put, upon this migration of labourer to the urban and mining districts, and for the purpose of meeting the undoubted want in many districts experienced by farmers in obtaining a proper supply of agricultural labour, he thought this was a movement which, at all events, deserved the sympathy and attention and interest of the whole agricultural community. No greater benefit could be conferred upon landlords, upon farmers, and upon the agricultural labourer himself than if we could arrive at any solution of this question of cheapening the cost of the necessary decent and sanitary accommodation for agricultural labourers.

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From "The World's Work and Play." [*Beresford.*

MR. J. ST LOE STRACHEY.

The originator of the idea of the Exhibition.

In Search of a £150 Cottage.

By J. ST. LOE STRACHEY.

(This article is reprinted without alteration from *The County Gentleman*, October 1, 1904.)

IF the agricultural problem and the problem of rural depopulation are ever to be solved they will be by the £150 cottage. This may seem at first sight what Bacon called "a desperate saying." We venture to think, however, that if the matter is carefully studied it will be seen that we are not exaggerating in our contention that a £150 cottage is what we want to improve our agriculture and to keep the people on the land. The more the question is considered the more clear it appears that the want of sufficient labour is one of the chief obstacles to sound and profitable farming in this country. It is also clear that the decay in the national physique, which at present is causing so much anxiety to all thoughtful and patriotic men, is due to the decrease of our rural population. It is only in the country, as far as the mass of the population is concerned, that really healthy men and women are bred, yet yearly our population becomes more urban and less rural. What is the cause of this depopulation of the counties? Why do the people flock into the towns?

The answer is not, we believe, as some enquirers have thought, to be found in the excitement of town life, or even in the better wages to be earned in the towns. It is to be found in the very simple fact that in the majority of villages and country districts it is yearly becoming more difficult for the labourer to obtain house-room. Cottages, as is inevitable with all houses, are gradually wasting away and tumbling down, and very few houses of a similar class are being built to replace them. We do not, of course, mean that no one builds new labourers' cottages in the country; but that there are fewer new houses built than old ones allowed to go to ruin. The result of this is that in many parishes when the young men want to marry there is nowhere for them to live. They can get work as single men either living at home or else in lodgings, but if they marry they must throw up their jobs and go elsewhere because there are no cottages vacant. Everyone who knows rural England knows of plenty of examples to illustrate what we are saying. In some cases men with families who for some reason or another have had to leave their cottages, though earning good wages, have even been obliged to send their wives and children into the workhouses, as the only possible shelter. Why are there so few cottages being built in the country, and why is no proper provision made for housing the rural labourers? The answer is quite simple. It costs more to build a cottage than the labourer can afford to pay in rent.

Practically an agricultural labourer, even if he is in constant employment, cannot afford to give more than 3s. a week for a cottage, or £8 a year, and this, under existing conditions, is not enough to pay interest on capital, rates, insurance, and repairs. At present a cottage in the country with a garden, which is essential, costs, not counting the land on which it is built, and making the smallest possible allowance for fencing and laying out the site and providing the water supply, at the very least £250, and probably more if the cottage stands by itself

and is not semi-detached or one of a row. But 4 per cent. on £250 means £10 per year; rates account for another pound; and insurance and annual repairs must be placed at at least a pound. Therefore, even if nothing is put for depreciation and management, it is impossible to make cottage building pay even a very moderate return unless the cottage, when built, will let for at least £12 per year. But, as we have said, the rural labourer cannot afford to pay more than £8 for his cottage and garden. Here, then, is the question in a nutshell. The labourer cannot afford to pay for the only form of house that under existing conditions can be built for him. The ordinary agricultural labourer, if his wages are taken all the year round, only earns on an average between fourteen and sixteen shillings per week, and out of this he cannot spare nearly five shillings for rent.

ONE OF A ROW OF CONCRETE COTTAGES AT SAFFRON WALDEN, WHICH WERE BUILT FOR £100 APIECE.

The next question is: Is it possible to build a £150 cottage—that is, a cottage which, not counting anything for the site or water supply, which on many estates the landowners would be willing not to take into consideration in the rent, can be let for £8 a year? A £150 cottage might just be let for that. Interest on capital would account for £6, and rates, annual repairs, sinking fund, and insurance for £2. At present, however, it is the almost universal testimony of landowners that a cottage such as the labourer rightly now demands, with three bedrooms, a living room, kitchen, and a scullery, cannot be built for £150. In a few exceptional places and under exceptional circumstances the thing may have been done, or almost done (see the very interesting letters published by Mr. A. H. Clough and others which recently appeared in *The Spectator*), but as a rule the £150 cottage is, as things now are, an impossibility.

Next we must ask: Why is it an impossibility, and are there any removable restrictions which prevent the building of a £150 cottage? We believe there are. We believe that a great deal of the dearness of building in the country is due to the "Building By-laws." The adoption of these ill-considered and coercive rules and regulations in so many parts of England has not only prevented cheaper cottages being erected within the areas affected by them, but has also checked the application to the manufacture of building materials of the inventive ingenuity and scientific knowledge which, had there been a free field in cottage building, would certainly have been applied to the solving of the cottage problem. It is clearly not worth while to devise and experiment with cheaper forms of building where the results of such experiments cannot be applied without a breach of the law. At this moment, if an inventor of genius were to discover a new way of building so cheap that a house could be built for £50 his invention would be worth nothing, for, practically speaking, he would be forbidden under heavy penalties to make use of it in the greater part of England. Clearly, then, the first thing to be done in order to make a £150 cottage a possibility is to get rid of that outrage on the public welfare—the building by-laws in rural districts. These by-laws, since they prevent cottages being erected of other materials than brick or stone, in effect insist that the man who can only afford to pay for a cheap house must have it built not cheaply, but in the most expensive way yet devised by man, and, therefore, must go without his house altogether.

When the absurd restrictions in regard to materials imposed by the existing building by-laws have been got rid of, everything must be done to encourage the application of the last words of science and human ingenuity in the erection of cheaper houses. Every possible material and every new system of construction must be experimented with until we arrive at a cheap and suitable method, or rather methods, for it is probable that five or six equally good may be discovered, though one may be more applicable to one part of the country than the other.

It is our intention to utilise the pages of *The County Gentleman* in order to help bring about a state of things under which it will not only be lawful to erect a £150 cottage, but also will be possible to discover plenty of firms ready and able to erect such a cottage.

In order to carry out our intention we propose to collect all the information we can on the subject. When such information is collected, and the subject has been thoroughly discussed, we hope it may be possible by the offer of prizes to get a practical exhibition in London of what can be done in the way of cheap building. We should like, if we are advised that our plan is practicable, to offer a series of prizes for the best £150 cottage. We believe that if visitors from all parts of England could be shown at a public exhibition a dozen or so of £150 cottages, the question of rural housing would be in a fair way to be solved. We do not think that we are exaggerating when we say that there are thousands of landowners in these islands who, if they knew that they could put up a cottage for £150, and knew also that when it was put up it would not only be fit to live in, but would not be contrary to the law, they would very willingly provide such accommodation on their estates as occasion arose. We propose, in the first place, to publish an article on behalf of that most useful body, the Building By-laws Reform Association, pointing out what must be done before the ground can be, so to speak, cleared of legal restrictions. Next we shall publish an article from the pen of "Home Counties"—the writer whose able contributions to *The County Gentleman* have already made him well known to our readers—stating what are the essential requirements for

an agricultural labourer's cottage—a cottage, that is, that will provide decency and comfort, but be free alike from fads and luxuries. We should like no doubt in the abstract to see the rural labourer as agreeably housed as possible, but it is clearly better for him and the country that he should possess a simple or even bare cottage than no cottage at all.

Next, we shall do our best to enquire in detail among those firms who make it their business to provide cheap forms of building, and shall lay the results before our readers. We want, that is, to put before them all that is to be known about iron houses, wire-wove houses, wooden houses, concrete-slab houses, ferro-concrete houses, and any other cheap houses which can be suggested by the ingenuity of architects and builders. Finally, and if the scheme meets with the encouragement which we hope and believe it will, we shall consider, as we have stated above, the possibility of a practical exhibition in London, and strive to show by physical examples what can be done in the way of the produc-

A PAIR OF SIR WALTER GILBEY'S COTTAGES.
Built of Clay Lumps and Weather Boards. Cost of the two, £290.

tion of cheap cottages. A house consists of walls, floors, and roof, and we refuse to believe that the resources of civilisation are exhausted by brick or stone walls, boarded floors, and tiled or slated roofs. For example, why should it not be possible by means of machinery to manufacture at a cheap price thick straw, or grass, or heather mats which could be laid over corrugated-iron roofs and so produce a house thatch which would be warm in winter and cool in summer?

Such details, however, do not concern us for the moment, though we trust as we go along that we shall hear plenty about new inventions for cheaper construction, and plenty also about old devices which might be profitably revived. We want to trade both with the living and the dead of all times and all nations for the solution of the problem of rural housing. Therefore, as we have said above, we ardently desire the co-operation of all who care for the welfare of their country. Without exaggeration, nothing less is at stake in view of the depopulation of our rural districts and its consequences on the moral and material welfare of the nation.

How the Exhibition Came About.

By "HOME COUNTIES."

THE story of the origin of the Cheap Cottages Exhibition is a most interesting one.

It had been seen for many years that one of the needs of the rural districts was more cottages. Unfortunately, the cost of building had increased at a time when the financial ability of many landowners to forward housing schemes had decreased.

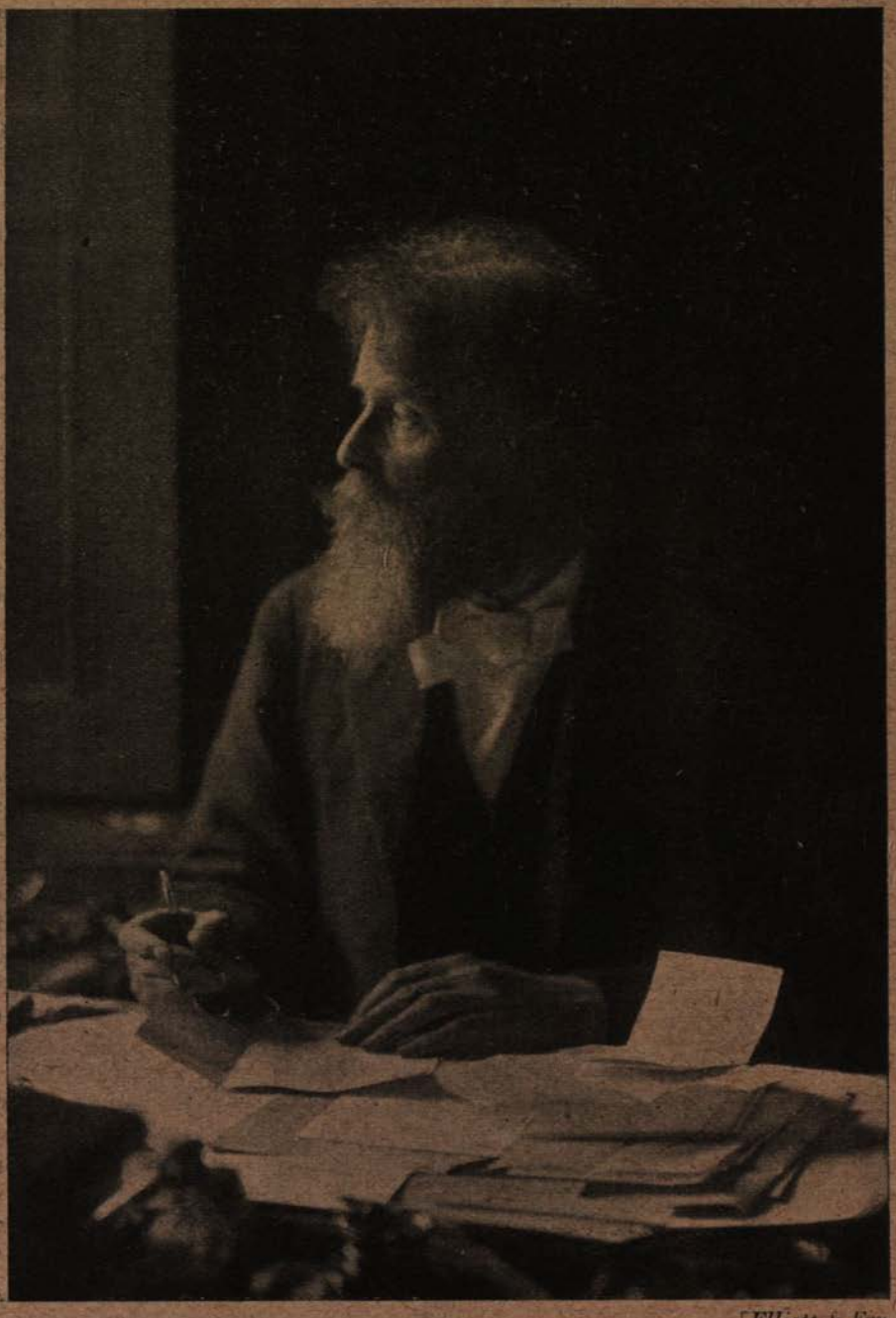
The Spectator and other journals lost no opportunity of pointing out that the difficulty could only be met by a modification in the restrictive building by-laws which existed in many districts, and by a reduction in the cost of building by the employment of materials not in common use hitherto. The Building By-laws Reform Association also did good work in keeping the subject to the front, while the pulling down of the bungalow built by Mr. W. S. Blunt, under regulations which had to be obeyed in one rural district but were not in operation in another, together with the proceedings against one of his Majesty's judges, furnished object lessons which made a considerable impression.

But the most practical step of all was taken when Mr. J. St. Loe Strachey, the editor of *The Spectator*, who is also the proprietor of *The County Gentleman and Land and Water*, went to the root of the matter by publishing in the latter paper on October 1st of last year the vigorous article, "In Search of a £150 Cottage," which will be found on another page.

This article, which attracted considerable attention, was followed by a series under the same title, which appeared week by week till the spring. I had the honour to be asked by Mr. Strachey to edit the series, and all the articles, with the exception of three, were written by me.* We discussed, to begin with, "What the Cottage must Comprise," and then "Structural Possibilities." Next I wrote on "The Money Difficulty and the Chance of the Board of Agriculture." Accounts of cottages of wood, and of wood and corrugated iron, of "clay lumps" and weather boards, of wood, expanded metal and plaster, of brick, of stone, of fire-resisting materials, and of concrete followed. When all the matter was re-published as a supplement to *The County Gentleman and Land and Water*, of a bulk equal to a hundred of the present pages, three successive editions were sold. We flattered ourselves that our labours

* It is a curious coincidence and significant of the degree to which the subject was in the air that when invited to take charge of *The County Gentleman* series I had already in type an article which appeared in *The World's Work* for October headed, "Cheap Country Cottages: An Authoritative Account of the Legal Difficulties and the Various Ways in which they may be Got Over." In this magazine also a series of cottage articles continued to the spring. These have now been re-published under the title, "How to Build or Buy a Country Cottage and Fit it Up" (Heinemann, 6/-). This book deals chiefly, however, with cottages for other than labourers.

The County Gentleman Supplement (a few copies of which are still on sale, price 6d., or 9d. post free) deals exclusively with labourers' cottages.



[*Elliott & Fry.*

MR. WILFRED SCAWEN BLUNT,

Whose Cottage was pulled down by the East Grinstead District Council.

had the effect of interesting many people in cottage building and the by-laws question who had never before given much attention to these matters. The efforts which we put forth were no doubt largely successful through the generous support which the daily Press gave to our cheap cottage movement.

During the publication of this series of articles Mr. St. Loe Strachey's tentative proposal to hold an Exhibition took definite shape, and *The County Gentleman and Land and Water* received a gratifying offer from the Garden City Company of a site on which cottages would not be subject to unduly stringent building by-laws, and would not have to be destroyed when the Show was over. The Duke of Devonshire and other public men manifested the warmest interest in the scheme, and the General Committee and the list of Patrons soon became exceptionally strong and representative, and a considerable sum of money was promptly placed at our disposal. To the laborious work of the organising and subordinate committees a number of extremely busy men, possessing special qualifications for the work in hand, gave themselves with the utmost readiness and public spirit. By the courtesy of the Garden City Company a room was provided gratuitously for committee meetings and the office of the Secretary, Mr. Wilbraham V. Cooper.

Considerable assistance was also given to the enterprise by a meeting which was held in the Westminster Palace Hotel in May, when Lord Onslow, Lord Carrington, Lord Hylton, Lord Heneage, Sir Walter Lawrence, K.C.I.E., Mr. W. Crooks, M.P., and Mr. St. Loe Strachey were among the speakers. Public attention was further directed to the question of building by-laws by the introduction of Lord Hylton's amending Bill (Public Health Acts [Amendment] Bill) into the House of Lords. At the time of writing it is under the consideration of a Select Committee of the House of Lords.

The Co-operative Permanent Building Society helped the Exhibition by an early offer to buy the first prize cottage in Class I., and Sir Henry Lawrence, chairman of the Nineteenth Century Building Society, was of assistance by promising to purchase another prize cottage. The Committee is further indebted to the gentlemen who have been good enough to contribute to these pages and to the well-known architect, Mr. P. Morley-Horder, for designing the cover and supplying the drawings on pages 28, 29, 30 and 32.

The work entailed on those responsible for the organisation of the Exhibition has been very considerable, and the difficulties of so novel an enterprise, to be overcome within a limited period of time, have been many, but the general result is, in all the circumstances of the case, striking and encouraging. The Exhibition has been made possible largely by public subscriptions, and a Show of similar importance has probably never been arranged at a smaller cost.

The success of the Exhibition is not only a source of great satisfaction to the newspaper in the pages of which the proposal to hold it was made and to the various committees who have worked so hard, but is a stimulating illustration of the way in which in our country a well-considered proposal for the public advantage can count upon the generous assistance of leading men.

As to reasonable reform of the building by-laws, it has now undoubtedly public opinion behind it. Even the last report of a Government Committee, the Report of the Departmental Committee on Fruit Culture, issued at the time of writing, demands that "building by-laws in country districts should be modified to allow cheaper construction of cottages."

PATRONS.

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His Grace the Duke of Devonshire, K.G.
His Grace the Duke of Westminster.
The Marquess of Bristol.
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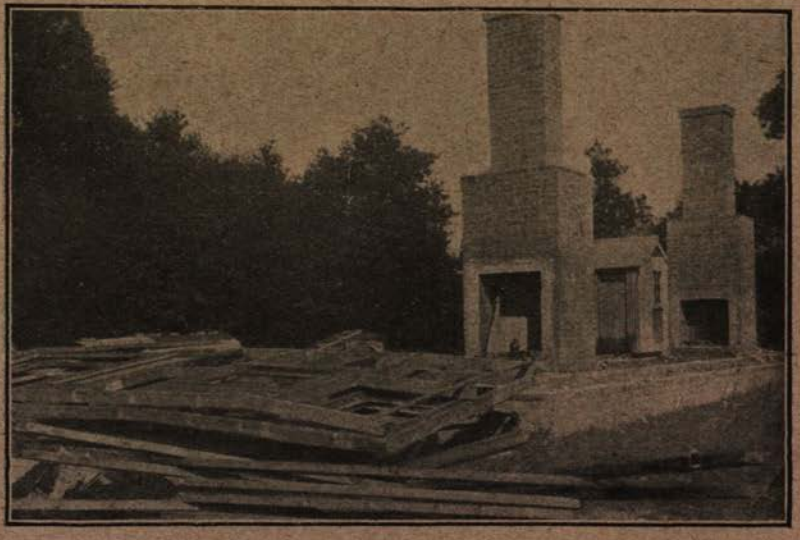

[*From "The World's Work and Play."*

MR. BLUNT'S COTTAGE, DEMOLISHED BY THE EAST GRINSTEAD DISTRICT COUNCIL.

Note the substantial footings and generous fireplaces to four rooms.

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The Earl of Harewood.
The Earl of Jersey, G.C.B.
The Earl of Lytton.
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MR. H. G. WILLINK.
MR. ALDERMAN WINFREY.
MR W. R. M. WYNNE.

From "The World's Work and Play."]

SIR WILLIAM GRANTHAM,

Whose Barcombe cottage plans brought him into conflict with the local District Council.

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MR. PERCY C. BURTON (Manager *The County Gentleman and Land and Water, Ltd.*), 3, Wellington Street, Strand, London, W.C.

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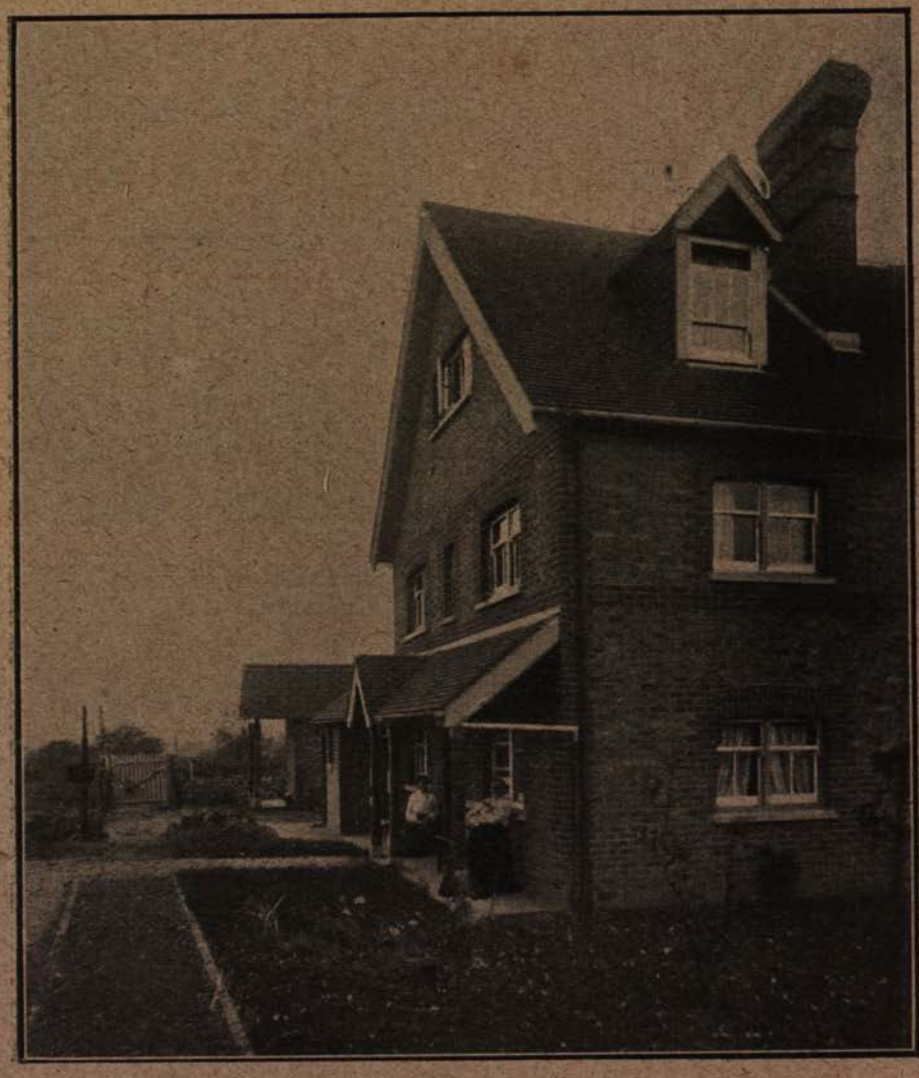
MR. WILBRAHAM V. COOPER, 347, Birkbeck Bank Chambers, Holborn, W.C.
Telegrams: "Housing, London." Telephone: 4993 Holborn.



[*Photograph by Edward Reeves, Lewes.*

THE COTTAGE PLANNED BY SIR WILLIAM GRANTHAM THAT ALL THE TROUBLE WAS ABOUT.

It will be noticed that it is a cottage at the end of a row.

DONATIONS.

	£	s.	d.
Anon (Prizes Fund) ...	100	0	0
Duke of Bedford, K.G. ...	100	0	0
The County Gentleman (Prizes Fund)	100	0	0
The Duke of Devonshire, K.G.	100	0	0
First Garden City Company (Prizes Fund)	100	0	0
Sir A. Harmsworth, Bart ...	50	0	0
W. H. Lever...	50	0	0
Lady Wantage	50	0	0
Earl of Rosebery, K.G. ...	25	0	0
Duke of Westminster ...	25	0	0
Lord Amherst of Hackney	20	0	0
Earl Egerton of Tatton ...	10	10	0
Hildebrand Harmsworth ...	10	10	0
W. Ransom	10	10	0
The Spectator	10	10	0
R. A. Yerburgh, M.P. ...	10	10	0
Lord Barrymore	10	0	0
Sir Hugh Bell, Bart. ...	10	0	0
Barrow Cadbury	10	0	0
E. Cadbury	10	0	0
The County Gentleman ...	10	0	0
First Garden City Co. ...	10	0	0
Mrs. Percy Thompson ...	10	0	0
Lord Tredegar	10	0	0
Lord Leigh	8	8	0
Hon. S. & F. Amherst ...	5	5	0
W. M. Acworth	5	5	0
Councillor J. Cornes ...	5	5	0
G. Courtauld	5	5	0
H. B. Harris...	5	5	0
Arthur Lee M.P.	5	5	0
Eleanor J. Powell	5	5	0
Lord Armstrong	5	0	0
F. Layland Barrett, M.P.	5	0	0
Somerset Beaumont ...	5	0	0
Mrs. Bucherett	5	0	0
Sir C. Cave, Bart.	5	0	0
W. J. Crossley	5	0	0
A. G. Crowder	5	0	0
Colone Hope Edwards ...	5	0	0
Mrs. Green	5	0	0
J. C. Hawkshaw	5	0	0
R. K. Hodgson	5	0	0
T. C. Horsfall	5	0	0
Messrs. Hutton & Ellis ...	5	0	0
M. L. J.	5	0	0
W. R. Malcolm	5	0	0
H. D. Pearsall	5	0	0
C. M. Powell	5	0	0
Honble. W. F. D. Smith, M.P.	5	0	0
C. E. Schwann, M.P. ...	5	0	0
R. M. Stevenson	5	0	0
Sir H. Shaw Stewart, Bart.	5	0	0
Christopher Turnor... ...	5	0	0
Rev Canon Valpy	5	0	0
Godfrey Walter	5	0	0
Miss E. Warrender... ...	5	0	0
Aneurin Williams	5	0	0
Col. R. Williams, M.P. ...	5	0	0
T. G. Ashton, M.P. ...	3	3	0
A. H. Clough	3	3	0
H. E. Pipe	3	3	0
Arthur Webb	3	3	0
Mrs. G. Wedgwood ...	3	3	0
D. Gillespie	3	0	6
Herbert Ainsworth... ..	2	2	0
Tempest Anderson	2	2	0
Miss S. M. Arkwright ...	2	2	0
Lord Avebury	2	2	0
J. R. Barlow...	2	2	0
J. Bonham Carter	2	2	0
F. B stock	2	2	0
British Uralite Co.... ...	2	2	0
Tom Bullough	2	2	0
Miss Busk	2	2	0
Rev. H. J. De Salis ...	2	2	0
F. B. Eastwood	2	2	0
A. Frewen	2	2	0
Davies Gilbert	2	2	0
Rev. H V. Le Bas... ...	2	2	0
Leeds Industrial Co-operative Society	2	2	0
Col. Le Roy Lewis, D.S.O.	2	2	0
Lincolnshire Small Holdings Association	2	2	0
Earl of Lytton	2	2	0
H. F. Mallett	2	2	0
Mrs. Matthieson	2	2	0
Mrs. St. J. Mildmay ..	2	2	0
XIX Century Building Society	2	2	0
Earl of Onslow, G.C.M.G...	2	2	0
Sir Horace Plunket... ...	2	2	0
H. A. Powell, ...	2	2	0
Capt. Pretyman, M.P. ...	2	2	0
Herbert Pullar	2	2	0
Rufus D. Pullar	2	2	0
Mrs. Rathbone	2	2	0
H. L. Storey...	2	2	0
E. P. Tennant	2	2	0
E. J. Thomson	2	2	0
E. D Till	2	2	0
Mrs. Toynbee	2	2	0
H. Wagner	2	2	0
Sydney Buxton, M.P. ...	2	0	0
Mr. & Mrs. Coutts Trotter	2	0	0
Lady Constance Fawkes ...	2	0	0
M. E. Gaskell	2	0	0
Rt. Hon. H. Hobhouse, M.P.	2	0	0
M.P.	2	0	0
Mrs Trotter	2	0	0
Honble. Percy Wyndham	2	0	0
Miss P. M. Ker	1	1	6
Rev. Dr. Abbot	1	1	0
W. A. Albright	1	1	0
W. Barnard	1	1	0
Harrison Barrow	1	1	0
Mrs. Berry	1	1	0
Blaina Industrial Society	1	1	0
Arthur Brooke	1	1	0
Mrs. Carpenter	1	1	0
H. A. Cholmely	1	1	0
Miss Cole	1	1	0
Mary Collier	1	1	0
W. M. Cooper	1	1	0
J. Craw	1	1	0

GARDEN CITY VIEWS. 1.—In the Garden City before the Exhibition. 2.—The Exhibition Buildings, in which Plans, Designs, and Accessories are on view.

	£	s.	d.
Miss Cropper	1	1	0
Margaret Evans	1	1	0
A. Franklin	1	1	0
E. M. Gibbs	1	1	0
C. Higgins	1	1	0
Miss Howse	1	1	0
Lord Hylton	1	1	0
T. W. H. Idris	1	1	0
E. P. Jones	1	1	0
Mark Judge	1	1	0
Rudyard Kipling	1	1	0
F. Levien	1	1	0
Sydney London	1	1	0
Dr. and Mrs. Lyndon ..	1	1	0
G. W. Marshall	1	1	0
J. G. Mellor, M.P.	1	1	0
F. W. Millard	1	1	0
Miss Miller	1	1	0
W. M. Minet	1	1	0
Lord Monk Bretton ...	1	1	0
Miss Morrison	1	1	0
Hugh Morrison	1	1	0
A. C. Humphreys Owen, M.P.	1	1	0
Alfred Ransom	1	1	0
W. Redmayne	1	1	0
W. C. Richmond	1	1	0
P. Riddick	1	1	0
Miss Roberts	1	1	0
Bishop of Salford	1	1	0
Silicate Paint Co.	1	1	0
J. Spicer	1	1	0
Rev. Dr. Spooner	1	1	0
D. Crichton Stuart ...	1	1	0
Trinity College, Oxford ...	1	1	0
Thackeray Turner	1	1	0
Sidney Unwin	1	1	0
Herbert Warren	1	1	0
R. H. Watt	1	1	0
H. G. Willinck	1	1	0
Admiral Hon. T. Brand ...	1	0	0

	£	s.	d.
Marquess of Bristol ...	1	0	0
Sir R. Edgcumbe	1	0	0
G. H. Hallam	1	0	0
H. T. Hodgson	1	0	0
Hamon Le Strange	1	0	0
Dean of Lincoln	1	0	0
E. R. P. Moon, M.P. ...	1	0	0
Mrs. Philpotts	1	0	0
Mrs. Rayner	1	0	0
G. H. Richardson	1	0	0
Mrs. Savile	1	0	0
Howard Savory	1	0	0
Mrs. Howard Savory ...	1	0	0
Honourable Maud Stanley	1	0	0
T. P. Trotter	1	0	0
F. E. W.	1	0	0
G. Warrack	1	0	0
Banbury Co-operative Society	0	10	6
F. E. Batchelor	0	10	6
Miss Bradley	0	10	6
Horace Field	0	10	6
Elsie Hys'op	0	10	6
Mrs. Livens	0	10	6
E. F. C. Rogers	0	10	6
B. Williams	0	10	6
W. T. Wire	0	10	6
Anonymous	0	10	0
Anonymous	0	10	0
Mrs. Bright	0	10	0
J. Helstrop	0	10	0
Miss Mudie	0	10	0
Miss Clayden	0	5	0
W. H. Dawson	0	5	0
J. L. P. Hamer	0	5	0
E. M. Longsdon	0	5	0
W. T. Makin	0	5	0
J. Pilling	0	5	0
F. W. Prichard	0	5	0
Miss F. Wilkinson	0	5	0
L. J. Harker	0	2	6

PAID TO THE PRIZES FUND.

The Ecclesiastical Commissioners	£250	0	0
Associated Portland Cement Manufacturers	50	0	0
Co-operative Small Holdings Society	10	0	0
H. J. Elwes, Esq., F.R.S.	10	0	0

Classification of Exhibits.

THE primary object of the Exhibition is to secure the erection of the best £150 Cottage, and a first prize of £100 is offered for this exhibit. It was desired that cottages entered for this prize should be detached, and should be, as far as possible, in accordance with the following description:—

1.—Number of living-rooms ...	One living-room and scullery or kitchen-scullery.
2.—Height of same	Not under 7 ft. 6 in.
3.—Number of bedrooms ...	Three, with two fireplaces.
4.—Height of bedrooms	Not under 7 ft. 6 in.
5.—Cubic space in bedrooms ...	2,000 ft.

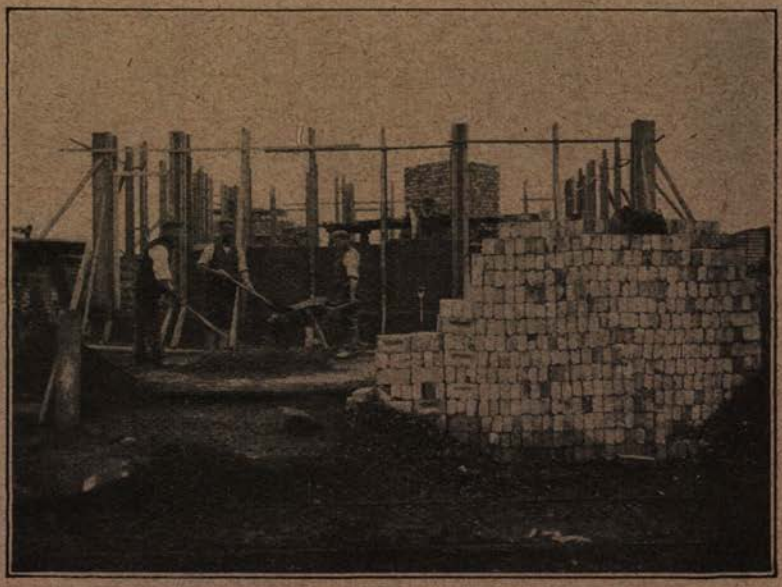
CLASS 2.—A prize is offered for the Best Pair of Five-roomed Cottages (including scullery, or kitchen scullery) erected at a cost not to exceed £300.

CLASS 3.—A prize is offered for the Best Group of Three or Four Cottages, no one Cottage to contain more than 6 rooms, including scullery, and erected at a cost not to exceed £35 per room.

CLASS 4.—A prize is offered for the Best Detached Cottage, or Pair of Cottages, each containing not more than 6 rooms, including scullery, and erected at a cost not to exceed £35 per room.

NOTE.—The estimated cost of erection in each case is to be exclusive of architect's fee and builder's profit.

In making their final award for all classes of Cottages the Committee take into consideration the relation of cost to appearance, accommodation, comfort, durability, fittings, suitability of material, and efficient workmanship. Marks are given for special excellence in these particulars, or taken off where exhibits are considered defective.



A CONCRETE COTTAGE FOR THE EXHIBITION IN PROCESS OF ERECTION.

DESIGNS.

CLASS 1.—A prize is given for the best design and specification for a detached Labourer's Cottage, the estimated cost of which must not exceed £150. Designs entered for this prize must be for Cottages, as far as possible, in accordance with the following description:—

1.—Number of living-rooms	...	One living-room and scullery or kitchen-scullery.
2.—Height of all rooms ...	...	Not less than 7 ft. 6 in.
3.—Number of bedrooms...	...	Three, with two fireplaces.
4.—Cubic space in bedrooms	...	Total of 2,000 ft. at least.

CLASS 2.—A prize is given for the best design and specification for a Pair of Five-roomed Cottages, costing not more than £300.

CLASS 3.—A prize is given for the best design and specification for a Group of Three or Four Cottages, no Cottage containing more than 6 rooms, including scullery, and not to cost more than £35 per room.

CLASS 4.—A prize is given for the best design and specification for a Detached Cottage or Pair of Cottages, each containing not more than 6 rooms, including scullery, and not to cost more than £35 per room.

An anonymous donor has given £100 as a prize for the Cheapest Cottage in the Exhibition. The judges have discretion as to the compatibility of the cheapness with the soundness of the building, and the suitability for a rural labourer and his family.

The Associated Portland Cement Manufacturers have promised a prize of £50 for the Best Cottage Built of Cement Concrete.

The Committee offer a prize of £50 for the Best Wooden Cottage. A wooden cottage is considered to be one built of timber between the roof and the foundations.

No Cottage may obtain more than one prize.

A SPECIAL PRIZE of £10 is given by Mr. H. G. Elwes, F.R.S., for the best design and specification of a Wooden Cottage, to be constructed entirely of English timber. Designs may be for detached, or semi-detached Cottages. Full particulars of this special competition will be sent to applicants.

A SPECIAL PRIZE of £10 is given by the Co-operative Small Holdings Society for the best model of a Small Holding.

Prizes are given for the best invention or improvement in building materials, and fittings calculated to improve, cheapen, or facilitate the erection of Cottage property.

Space is provided for exhibitors of accessories, building materials, exhibits of furniture, products of village industries and Guilds of Handicraft, etc., etc.

How to Get to the Exhibition.

LETCHWORTH STATION (G.N.R.) adjoins the "Town Area" of the Exhibition and the Covered Halls containing the Designs and Accessory Exhibits.

The "Agricultural Area" can be reached in a few minutes by a path across the Common from the "Town Area," or by road.

The Great Northern Railway issues tickets, including admission to the Exhibition, at 2s. 6d. return fare, 3rd Class, from King's Cross. These may be obtained at the Booking Office, or at 347, Birkbeck Bank Chambers, W.C. Train times are at present as follows:

	a.m.	a.m.	p.m.	p.m.
KING'S CROSS	9.0	11.10	3.10	6.18
LETCHWORTH	9.51	*12.5	4.4	7.18
CAMBRIDGE	10.27	12.55	4.54	7.54

* Stops when required to leave passengers

	a.m.	a.m.	p.m.	p.m.	p.m.	p.m.
CAMBRIDGE	7.40	9.25	1.38	4.3	6.30	6.40
LETCHWORTH ...	8.33	10.19	*2.28	4.57	*7.0	7.31
KING'S CROSS ...	9.34	11.20	3.40	5.55	7.55	8.30

* Stops when required to take up passengers.

The Exhibition can also be reached by motor car and cycle by the Great North Road (running through Hatfield, etc.). The distance is about 34 miles.

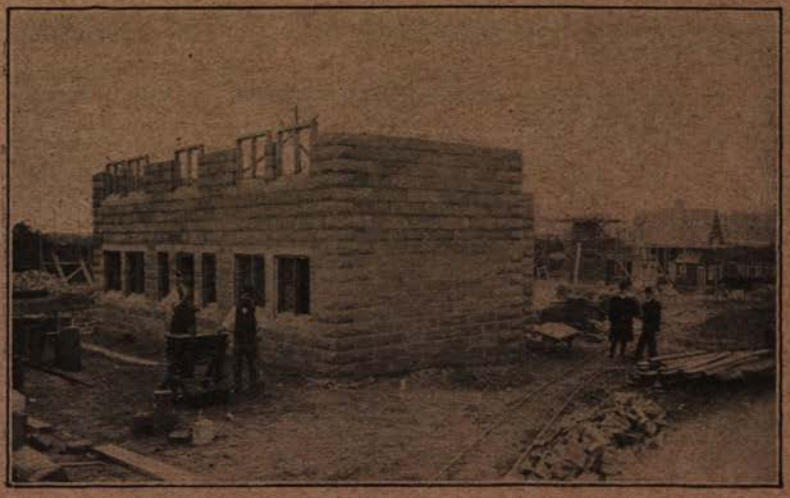
A Plea for Bungalow Cottages in Rural Districts.

By THOMAS POTTER.

[Mr. Potter is well known as the veteran Editor of *The Clerk of the Works Journal*, and the Author of a work in two volumes on Concrete.]

THE only objections that I am aware of to bungalow cottages for labourers and other workmen in rural districts are assumed to be as follows:—

1. Sleeping-rooms on the ground floor are unhealthy by reason of ground air entering the bedrooms at night.
2. They involve double the ground and roof area, and *per se* double the cost of foundations, roofs, rain-water eaves, gutters, and rain-water down pipes.



A CONCRETE BLOCK COTTAGE IN COURSE OF ERECTION AT THE EXHIBITION.

The reply to these objections is:—If the floors are constructed in accordance with the section on next page—and it is by no means an untried method, having been in use for many years—no ground air can pass through them. The dry rubble may be cinders, brick débris, or other hard, dry material; the concrete, Portland cement and cinders or coke breeze; the paving, granitic cement for sculleries, larders, lobbies, and closets; and for the living and bed rooms, ordinary floorboards nailed direct to the concrete.

The durability of floors of this description is greater than of any other, and the wood casing never decays—assuming the concrete under is allowed to become quite dry before the boards are fixed thereto—neither will they burn, but simply char or smoulder, even if a fire is made thereon.

With respect to the roof area being double that of a two-storey cottage, this is not quite correct. No stairs being needed, the double roof area is reduced by the amount necessary to cover the stairs and landings. On an average, the superficial area of the latter is from fifty to sixty feet. The average area of a cottage is four hundred and fifty to five hundred feet, and the roof area of a bungalow cottage is therefore double that of a two-storey cottage less twelve and a half per cent. of the latter.

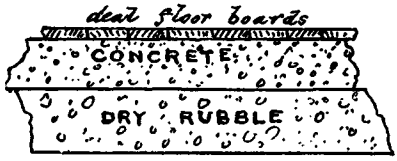
The foundations for walls would be in the same proportion, but as the weight thereon is only one half that of a two-storey cottage per superficial foot, they need not be so substantial. Any way, under ordinary circumstances the foundations for a cottage form only a small item in the general cost.

Eaves, gutters, and rain-water pipes are necessarily increased *pro rata* to the roof area.

The floor area of a bungalow is obviously the same as a two-storey cottage, less the space occupied by the stairs, but the floors cost less, as wood joists, wall plates, trimmer arches, and strutting are not wanted.

Concrete under all ground floors is now considered necessary for every cottage, and, as previously described, the concrete forms the base for the floorboards; the wood joists, etc., of the upper floor are a clear saving in cost.

Another saving is in the cost of stairs, and enclosing partitions or walls for same; and another is in the cubical saving in space and corresponding saving in cost through the absence of stairs.



A GOOD WAY OF MAKING A COTTAGE FLOOR.

With these suggestions it should be an easy matter to estimate the difference in cost between a bungalow cottage and a two-storey cottage of the same size. The result would be to find the bungalow worked out the cheapest.

So far as healthfulness goes, the bungalow has many advantages. It covers more ground, the air inside gets more diffused, the fact of the opening and shutting of doors and of individuals moving about helps the air to circulate. This occurs much less in two-storey bedrooms.

In a two storey cottage the stairs form an air shaft to conduct the heated vitiated air from the living-room and scullery to the bedrooms.

In a two-storey cottage the doors of the bedrooms must be located near each other, or there is the waste and increased cost of a large landing or long passage. A cottage bedroom landing usually measures about 5 ft. by 3 ft., and the three bedroom doors are necessarily close to each other, and when the three bedrooms are occupied much of the vitiated air escapes therefrom. In case of sickness or contagious disease in either of the rooms this escape is dangerous, and in ordinary cases most unhealthful.

In a bungalow arrangement the bedroom doors may be a considerable distance from each other; in cold weather the living-room fire affords some amount of heat to the bedrooms.

There should not be, and need not be, any hollow places whatever in a cottage sufficient to harbour dust, dirt, or vermin—not even a beetle. In

a two-storey cottage this is not practicable in an ordinary way, as dirt and floor washings find their way through the cracks in the bedroom floorboards and remain there until the floor is worn out.

As the bedroom partitions can seldom be arranged to come over the walls below, they have to be supported by the bedroom floor joists, are made of wood, and lathed and plastered both sides, providing space for dirt and mice, and forming a series of flues to carry the flames to the roof in case of fire. The bungalow walls internally can be all solid; there need be no hidden floor cavities or crevices whatever.

For general convenience the bungalow is far superior to the two-storey cottage. There are no stairs for children to fall down, and none to keep clean—a saving in labour to the housewife. In case of sickness the wife can be within hearing wherever she may be on the premises, not always the case in a two-storey cottage. If the husband is suffering from acute rheumatism he may be able to move from his bedroom to the living-room, or even out of doors with the aid of sticks; to come downstairs would be quite another matter.

The labour entailed on the housewife in going up and down stairs each day may be measured by foot-pounds—one foot in height is equal to

(From "Model Factories and Workshops" (Uncin).

PORT SUNLIGHT COTTAGES.

twelve feet on the level, so nine feet from floor to floor is equal to the labour of walking thirty-three yards in a straight line each time the ascent is made.

A gruesome feature of the two-storey cottage with its narrow stairs and winding steps—perhaps both at top and bottom—is the difficulty of getting a coffin downstairs—in some instances almost a revolting spectacle to kindred who may be looking on. The bungalow presents no difficulties in this respect.

Bedroom slops have not to be carried downstairs, nor water and bedroom utensils upstairs—not a serious matter to undertake, perhaps, in a cottage, except in the case of long sickness or a bed-ridden member of the family, possibilities which should be considered.

A fire left in a bedroom grate, unattended, of a two-storey cottage is dangerous; live coals or a burning faggot-stick may set the floors alight. In a bungalow the wood floor, as described, will not burn; it simply chars, but cannot be made to blaze.

If a concrete underground tank is constructed—they are inexpensive—and a cottage pump attached, the much larger roof area of a bungalow cottage will provide rain-water all the year round, no slight benefit where there is only a deep well, or perhaps no well at all, the supply being

obtained by carrying water from a spring at a considerable distance—quite a common occurrence in many rural districts.

There is no danger from fire with a bungalow, for there is no necessity for lath and plaster on wood partitions—or, worse still, match-board partitions—and as the floors cannot burn, the only combustible wood is the shelving, doors, and windows. The roof timbers are unlikely to catch alight, and if the ceilings are lathed with metal lathing instead of wood, at an extra cost of about two pounds, it would be difficult to burn a bungalow. A steel-lathed ceiling will resist a fire under for at least an hour without falling, or the wood ceiling joists over from catching alight.

On the three most important points of cost, healthfulness, and tenant's convenience, I am in hopes of having been able to show that a bungalow cottage possesses advantages that are impossible with a two-storey cottage.

It may be said, perhaps, that theory and experience are quite two different things. My reply is that having built many cottages of both types, and having lived in a bungalow more than half an average life-time, and in two-storey buildings, and higher still, the remainder, I may reasonably be allowed to speak with some authority.

Continental Stoves for the Cottager.

"WHAT a blessing," writes a correspondent of *The Spectator*, "could cottagers have the small detached stove of the Swiss or Germans, like a small table, and as convenient to work at. A pipe from it, entering the closed chimney near the ceiling, first dispenses its warmth through the room. Such a stove can be had in Germany for from £1 to £3, according to size. It has its small oven, always hot, one, two, or three 'holes' for pots in its clean level top, and a small side boiler for a little extra in price. These possibilities for cooking might gradually lead our poor country wives who have gardens and poultry to attempt the hundred uncostly dainties enjoyed by Swiss and German peasants."

The Secretary of the Rural Housing and Sanitation Association is Miss Churton. Address: 9, Southampton Street, High Holborn, W.C.

Mr. R. A. Read is the Secretary of the Building By-laws Reform Association. Address: 45, Parliament Street, S.W.

A copy of the Model By-laws for Rural Districts, issued by the Local Government Board, can be ordered through any newsagent of the King's printers. Price 6d.

NOTICE.—The Committee of the Exhibition will endeavour carefully to return all plans and designs at the close of the Exhibition, and will take all possible care of Exhibits, but can undertake no legal responsibility therefor.

I.—By M. H. BAILLIE SCOTT.

TO me the art of building, even as expressed in a cottage, is the greatest of all arts, and the question of money, however important, should always be a secondary matter to the earnest attempt to achieve that combination of the ideal and the real which makes building as an Art unique.

The cottage should be the dream come true, the result of infinite pains, and whether it pays 5 per cent. or 6 per cent. is quite a secondary matter.

All buildings, even the smallest, have personalities—of sorts—and the cottage should have a soul of its own. The Art should not be superadded at an extra cost, but be essential and fundamental, and, like the water of crystallisation to the crystal, should be so intimate to the structure that without it it would not exist at all.

I am afraid, however, that the cottager will prefer the type of so-called cottage which is struggling after the gentilities of the villa!

II.—By P. MORLEY-HORDER.

THE problem of the inexpensive Cottage is not one that can really be solved by either the architect or the manufacturer of the ready-made building.

The Garden City Movement is doing a splendid work in showing what can be done to improve the conditions of rural life, and in encouraging the return of large numbers of the community to healthier surroundings. The real problem seems to me to be one of adequate employment, and if this can be found in sufficient variety to encourage men of varying positions and capacity to return to the country permanently and form a really interesting social community, the question of adequate houses will be a simple matter.

The site for the Garden City operations is in every way all that can be desired. Indeed, it is so beautiful a piece of country that it would seem almost undesirable that any experimental building, on the scale rendered necessary by the present Exhibition, should be attempted in such settled and natural conditions! It might have been more fitting that the experiments should have been made in some barren country, and only the suitable have been transferred to its soil! Unfortunately, the requirements of the promoters as to a site near London, and the financial limitations of a purely philanthropic enterprise like this Exhibition, narrowed the area of choice. Building on any extensive scale, and such as is demanded by the immediate necessities of even a Garden City, must of necessity involve great

changes in the face of any land, and one is glad to see that the new movement has at least set out to avoid, as far as possible, the undesirable conditions of a building estate as commonly understood.

The interest in the present Exhibition, and the good results that are sure to follow from the general discussion of the Housing Problem, should not blind us to the dangers of too much experimental work in a craft that has such very special English traditions. English town and village architecture is altogether unique in its ingenuous simplicity and harmony with the local colour and landscape. We have already wandered far enough from the beautiful models left to us with all our insistent, but apparently ignorant, admiration for the old.

The variety of building materials available after the Exhibition will increase tenfold the dangers to the country side, and give additional opportunities to the selfish individualities of modern building. Already rural scenery is at the mercy of the smallest landowner who can plant his glorified pill box in the most desirable landscape. In many parts of Essex the disastrous effects of cheap cottage building can be seen.

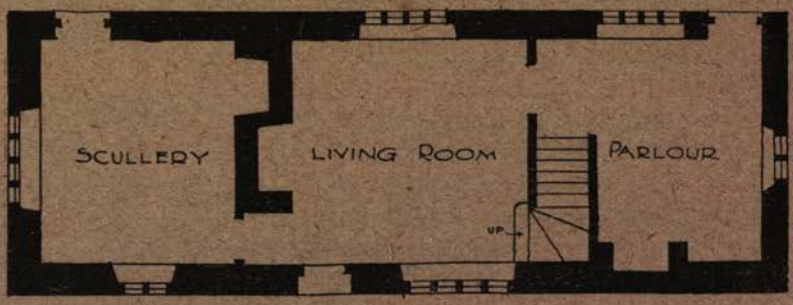
A Roadside Cottage

Whole tracts of land have been cut up into strips and dotted over with buildings that look like so many fowl-houses.

Personally, I venture to doubt whether the quality of apparent permanency, which belongs to all beautiful buildings, can ever belong to many of the materials that are under consideration, and whether the cheapness that so recommends their use can be borne out by time, or even by present calculation. I feel sure that when the real exodus from the town becomes possible there will be a return to the natural use of the building materials of each district. With the demand local enterprise will again spring up, and, with available skilled labour directed by real knowledge and love of the country, it will be discovered that these natural materials, whether stone or brick, are the most permanently inexpensive and beautiful. The traditions of each district will be revived and adapted to modern ideas and ways of living. Perhaps with this revival may come such a genuine interest in our local architecture that the individual may think it worth while to sink his preferences and external assertiveness in a common desire for the subordination of his material surroundings to the greater emphasis of the more important architecture of the church and the market place.

This is to be a Garden City, and those who control the building operations should bear in mind that the Garden will give more beautiful variety than any building—the secret of which lies more in variety of grouping than in detail. Every effort should be made to save the matured aspect of the land in tree and hedge row, and above all things the exclusiveness of the fenced boundary should be avoided. The roads might well be bordered with wide margins of grass and all metallic paving avoided, formality only being found in the lines of the houses and the ordered patch of garden around each house where trimness of form and colour should be encouraged as a foil to the wilder charm that elsewhere is striven after. With such naturally rural surroundings uniformity of building in wall and roof is almost desirable, and especially as contrasting with the villa that has become so restlessly familiar in the suburbs of our towns.

The necessary business footing on which all such enterprise must be placed will hamper in a measure the achievement of many of these ideals, but the permanent appeal of such an estate to a cultivated class of residents must, I believe, in a large measure depend on a certain generosity in keeping the building operations subservient to the present



SIMPLICITY OF OLD PLANNING

character of the land. The Garden is there, and the City must grow out of it without ostentation or it will quickly lose its charm and real value.

Nothing could be simpler than the old cottage, and it is the false modern ideas of what is known as "picturesque," and the straining after effect, that makes building expensive in these days. We want the luxuries of architecture in buildings that require nothing but soundness of wall and roof, with ample space for Nature to tone and, so to speak, absorb these materials into the lines of the scenery. The reaction in favour of the common sense and beautiful, because suitable building will come when time has had its revenge on our mock villas, and the slow forces of education in our technical and art schools have spread new and better ideas as to the fitness of material things. It will come primarily in this country when the widespread superstition that the sense of sight needs no education and the influence of fashion have ceased to trouble us.

Meantime, for all practical purposes this Exhibition will demonstrate for how small a sum the individual and permanently habitable cottage can be built with any advantage to the owners.

It is, of course, admitted on all hands that the Local Government By-laws, as existing, are absurd in as far as they preclude the erection of cottages on the lines of those that have stood for a hundred years or more

already. The whole question is one of vital consequence, and it is to be hoped that some wise discretion will be used in the urgently required revision of these by-laws.

From the architect's point of view there cannot be any real building without a note of permanency. If we really love the country for its own sake, the note of permanency in wall and roof will be essential to us. We shall see that these external conditions are strong and sound, and desirably plain to a fault.

We shall realise that the proportion of money usually spent on inferior furnishings is at the expense of that vital solidity of the house, any cheapening of which mitigates against our permanent comfort. If the man of small means is to live in the country under present conditions, it must be on a high plane of austerity, demanding no little courage and repression for some time in all the luxuries of life. This must be so in order that he may get the essentials soundly built, and allow his personal idiosyncracies (which are only legitimate in the privacy of the interior) to await their opportunities for development.

III.—By THE SECRETARY OF THE EXHIBITION.

THE lists of Patrons and Subscribers and the Catalogue of Exhibitors in this book testify to the great interest evoked throughout the British Isles by this Exhibition.

The novelty of the experiment has probably been a stimulus to that interest, only second to its practical value.

For this is not a passing Show nor an advertiser's playground, but will remain a hundred rural homes. Support has been generously given by philanthropists and working-men, landlords and land agents, architects and builders, and many others with an interest in cottage building.

The causes of rural depopulation are various. There is plainly no wish to lessen the attractiveness of life in large towns; and there do exist districts where special causes of the population's decline really diminish the need for new cottages. There can be no denying, however, that the want of good and attractive cottages in rural districts is an actual cause of depopulation in very many parts; and this is the particular cause which the Exhibition is designed to combat.

In some districts, particularly near London, there are good and sufficient cottages upon estates which are owned by persons who have incomes from other sources. So much the better for the gamekeeper or other *employé* who is thus housed regardless of cost, and often in a home upon which a good architect has expended effective labour. But cottage-building at a loss is a luxury which cannot be depended on for a permanent solution of the problem. Unless building can be done on sound commercial methods, it is of no general value. The landlord, who is dependent on his property for his income, must be able to build cottages which give some return upon the outlay.

He knows that he cannot get more than two or three shillings a week in rent; and what net remuneration is left from that upon an outlay of, perhaps, £250 on a cottage or £450 on a pair? Still less would a thrifty working-man invest in a home of his own when he can get interest on his savings twice as great as the rent he need pay.

The Exhibition, then, starts with the frankly utilitarian aim of showing that cottages can be built cheaply.

Its promoters took the line that it is worth while seeing a cheap cottage, even if it has no pretensions to an attractive appearance. For it may have more than one suggestive point in planning or material.

Then, given the methods and materials, a good architect or a builder who knows the values of proportions can build an equally cheap cottage which is not ugly, for beauty is not dependent on costly ornament. At the same time, it must not be forgotten that many of the cottages here have been designed by well-known architects, and have, therefore, well-founded pretensions to beauty.

We may be asked why, if a number of cottages can be built on this Garden City site for £150, it is not done wherever needed. The answer is twofold.

A Row of Cottages

Firstly, if a landlord has not got quarries and brick-fields in working order on his property, he may need other materials, and these are not widely known; nor are new methods of building, planning, etc.

The Exhibition will help to make them so.

Secondly, in many places where they are known, builders are hampered by the local by-laws.

No one ought to condemn wholesale the by-laws which have done so much to prevent unsound and insanitary building. But the fact remains that in many districts the materials allowed do not include those that can be used to the best advantage in the neighbourhood; in other rural districts the by-laws are those suitable for an "urban" area, and the general inconsistency is in itself a source of difficulty.

Those who are responsible for these by-laws are invited to criticise the Exhibition cottages. If they cannot show valid objections to those which could not be built under their by-laws, then they should lose no time in helping to make them reasonable and consistent throughout the country.

The aim of the Exhibition may be summed up as being to prove that the cost of cottage building should be no bar to the growth of that healthy rural population which is so vital a necessity to the welfare of the British nation.

WILBRAHAM V. COOPER.

The Cheap Cottage before the Cheap Cottages Exhibition.

THE Press, by constant quotation, and public speakers, from the Duke of Devonshire downwards, by their kind allusions to the Cheap Cottage campaign, have so familiarised the public with the idea of Cheap Cottages that it is almost necessary to give the reminder that when the first article appeared in *The County Gentleman and Land and Water* on October 1 the possibility of erecting £150 cottages was widely scouted.

For two new brick cottages containing nine rooms and a scullery, lately bought in a district in which agricultural labourers do not get more than 13s. a week, the builder had received £400, yet he declared that he had lost money. In the paper read by Mr. A. H. Belcher, A.R.I.B.A., before the Architectural Association on "Economics of Construction in Small Houses," his cheapest examples were as follows:—

The lodge at Amersham, £225, or 6d. a foot cube. 1900.

The gardener's cottage at Great Warley, £340, or 7¾d. ft. cube. 1903.

The cottage at Hollingbourne, £475, or 10d. ft. cube. 1901.

The lodge at Bembridge, about £400, or 10d. ft. cube. 1900.

The pair of cottages at Trashurst, £660, or 6d. ft. cube. 1900.

The two entrance lodges at Moreton-in-Marsh, £500, or 6½d. ft. cube. 1903.

The four cottages at Hidcote, £1,095, or 5¾d. ft. cube. 1904.

Then, in October, Mr. A. H. Bowles wrote that he "lately put up a perfectly plain pair of brick cottages (three bedrooms, living-room, back kitchen, sink, boiler, etc., and wood or coal shed) by contract for the sum of £500, and when the builder was asked to put up another pair at the same price, he declined to do so under £530."

These data surely illustrate very forcibly the need of demonstrating the practicability of the £150 Cottage.

Facts About the Garden City.

"Nobody who travels by rail from London can fail to notice in too many places that, instead of having the healthy surroundings which residences ten or twenty miles from London should enable you to have, the houses are being crowded together without proper sanitary arrangements, certainly without gardens, and that, unless some steps are taken to prevent such a state of things, as our slums in our great cities are emptied, new slums in the country outside will arise. Now a development of that kind is entirely put a stop to by such a scheme as the Garden City."—SIR JOHN GORST.

THE Garden City Pioneer Company was formed in September, 1903. Its capital of £20,000 was soon subscribed. Its object was to investigate estates and interest manufacturers.

The First Garden City Company followed a year after, when the Letchworth Estate had been selected. The capital is £300,000 in £5 and £2 shares, £40,000 being taken by the Directors and their families.

The Directors are:—

RALPH NEVILLE, Esq., K.C., *Chairman*, Banstead Place, Banstead, Surrey.

EDWARD CADBURY, Esq., Manufacturer, Bournville, Birmingham.

HENRY BLACKWALL HARRIS, Esq., Solicitor, 37, Kensington Square, London, W.

EBENEZER HOWARD, Esq., Author of "Garden Cities of To-morrow," 50, Durley Road, Stamford Hill, London, N.

COLONEL F. S. BOWRING, C.B., R.E.

T. H. W. IDRIS, Esq., J.P., L.C.C., Manufacturer, Pratt Street, Camden Town, London, N.W.

HOWARD D. PEARSALL, Esq., M.Inst.C.E., 21, Parliament Hill, London, N.W.

FRANKLIN THOMASSON, Esq., J.P., Cotton Spinner, Arden Lea, Bolton, Lancashire.

ANEURIN WILLIAMS, Esq., Barrister-at-Law, Wheelside, Hindhead, Haslemere.

The secretary is Mr. Thomas Adams, and the offices are at 344-351, Birkbeck Bank Chambers, Holborn.

The Company was formed to develop an estate of about 3,800 acres, between Hitchin and Baldock, on the lines suggested by Mr. Ebenezer Howard in "Garden Cities of To-morrow," "with any necessary modifications." The root idea of Mr. Howard's book is to deal at once with overcrowding in towns and the depopulation of rural districts.

The town is to be limited to a population of about 30,000 inhabitants, and the dividends to shareholders are to be limited to a cumulative dividend of 5 per cent. per annum. The Directors believe that the undertaking "will soon become dividend paying, and prove a sound investment at a cumulative rate of 5 per cent. per annum."

Before building began on the estate, which cost about £155,000, there were already residences upon it of the estimated insurance value of over £80,000. The population of the estate, which included the two villages of Willian and Norton, was about 450.

The first sites were let in April, 1904.

The Company has spent £30,000 in improving the estate, and paid off nearly £10,000 on mortgage last year.

The sidings and factories will be grouped together and screened from the residential quarter of the town by a hill and a belt of trees. In view of modern developments in gas and electrical power, steam is not likely to be largely used for manufacturing purposes, and smoke will be much less prevalent in Garden City than elsewhere. An effort will also be made to beautify the factories by surrounding them with trees and open spaces.

Sites for the following factories have been let :—

Messrs. Heatly Gresham Engineering Co., London.
Messrs. Vickers & Field, Asphalt Manufacturers, London.
Garden City Press Ltd., Hitchin.
Messrs. Ewart & Son, Geyser Manufacturers, London.
Messrs. Idris & Co., Mineral Water Manufacturers, and others have also selected sites.

The first three are erecting their works. Messrs. Vickers & Field started operations on the estate some months ago. About fifteen acres of factory sites have been already dealt with, and sites for about 300 houses have been selected.

A ROAD IN THE GARDEN CITY.

Land is being let on 99 years' leases.

Numerous applications for small holdings in the agricultural belt have been received. Only a small portion of the estate came into the Company's hands last September, and this has been satisfactorily dealt with. Several small holders, occupying from one to fifty acres, have been established at rents ranging from 30s. to £4 an acre. Within the present year about 700 acres of land will come into the Company's hands, and it will then be possible to carry out a systematic scheme of small holdings. There is a Small Holdings and Allotments Society, and an industrial bank.

The main road to London from the North passes near the edge of the estate, and motor transit to London and to the Thames will be simple and easy.

The Company has formed a total of over three and a half miles of road during the first eighteen months of its ownership of the estate.

Sewers have already been laid along the roads on which development is taking place, and a temporary sewage farm has been provided to the west of Norton Common. The permanent sewage works and farm will be about a mile from their present position, and quite away from any part of the town.

The water is obtained from a borehole, round which the Company will preserve a considerable area of unbuilt-on land; the present supply is considered to be sufficient for 6,000 inhabitants. The reservoir holds 250,000 gallons, and lies at an altitude of about 130 ft. higher than any part of the estate.

The Garden City Company's gas works begin operations with the opening of the Exhibition. An electrical plant will probably be laid down in the near future.

The area occupied by the town is about 1,200 acres; parks and open spaces, 200 acres; and agricultural belt, 2,400 acres.

On the provided for population of 30,000 persons the density will be about twenty-three per acre on the town area, and nine per acre over the whole estate.

[From "Model Factories and Workshops" (Unwin).

MESSRS. ROWNTREE'S COTTAGES AT EARSWICK.

Sites for from 300 to 400 houses and cottages have been let, and from thirty to forty houses are already occupied.

There are two post offices on the estate, and a third will shortly be provided.

About ten shops will be erected during the summer.

There are two temperance hotels and two licensed inns on the estate.

The present rental of land for cottages and residences carrying with it the advantages described in the prospectus varies from £10 to £25 per acre, according to situation. Not more than twelve houses may be erected on the net acre of land leased, and the ground rent of a cottage in the town area may, at present, vary from £1 to £3. The county and local rates are about 3s. 6d. in the £, including poor and education rate.

The plan of the proposed town has been prepared in a spirit of respect for what already exists, and in accord with the contour of the land, and it can be carried out without the destruction of any of the standing trees, or of such existing features as Letchworth Park and Norton Common.

For the Central Square of the town a level plateau has been chosen near the existing station. It is marked on the spot by three isolated oak trees. The roads radiating from this Central Square, which will give ready access to all parts of the town, have been so planned that glimpses of the open country will be obtainable along them from the heart of the town, while they will afford to those approaching from the outskirts good views of the central buildings.

The station has been placed in the cutting to the north-east of the temporary station. It will be conveniently nearer to the Central Square, and yet far enough away for the noise and traffic to cause no annoyance. The present temporary station is a little to the west of the site of the permanent station.

It is proposed to have considerable variety in the character of the roads, and while the actual roadway will be adapted to the probable volume of traffic, the total width will be increased in many cases by

[*From "Model Factories and Workshops" (Unwin).*

MR. W. P. HARTLEY'S COTTAGES AT AINTREE, LIVERPOOL.

grass margins between the roadway and footway, in which trees will be planted, or by continuous strips of grass or garden between the roadway and the houses.

There is a German, a Dutch, a Belgian, and an American Garden City Association. The first International Garden City Congress was held in London a year ago.

The original Garden City is Garden City on Long Island, nineteen miles from New York. It was designed entirely as a residential suburb for a fairly well-to-do class. The other places of this name in the United States, situated respectively in Missouri, Kansas, Texas, and Nebraska, do not call for notice, Mr. Budgett Meakin says in his useful book, "Model Factories and Workshops" (Unwin), as they are but ordinary townships.

For Week-end Cottages, Bungalows, Flats, &c.

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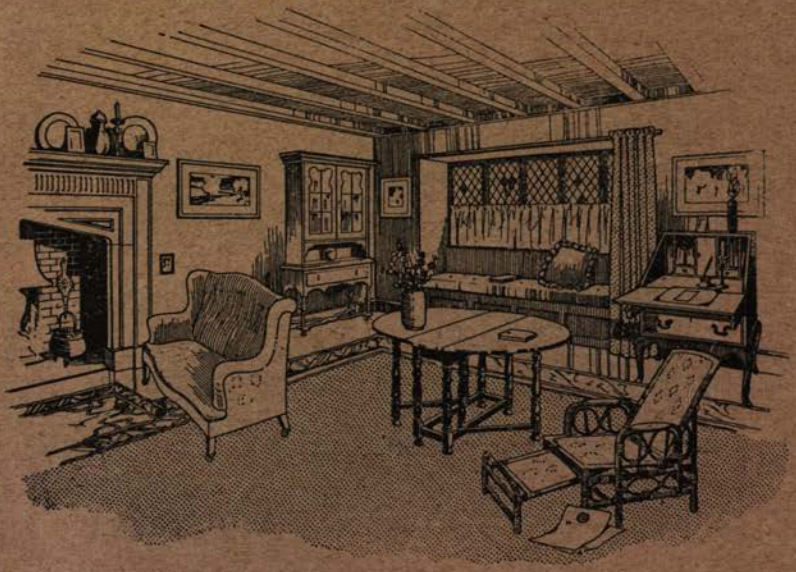
Are now making a display of specially interesting examples of

Modern Furniture,

which, although inexpensive, are notably refined in design and substantial in structure.



View of the Hall Sitting-room in a Week-end Cottage recently Furnished throughout by Hamptons for £100. For full details see Booklet T530, sent free.

To anyone who contemplates Decorating and Furnishing, Hampton & Sons will be pleased to send their entire series of catalogues illustrating the latest productions and best current values in Artistic Furniture Carpets, Curtains, Fabrics, Linens, Ironmongery, China and Glass, Fine Arts, &c.

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CATALOGUE.

COTTAGES.

[All the particulars in regard to the different Cottages are supplied by the Exhibitors themselves. In cases where no description of the special features of a Cottage is given, the Exhibitor has omitted to furnish the required information.]

TEMPORARY BUILDINGS.

1. **Thos. J. Hawkins & Co.,** Ashford, Middlesex.

Bungalow. Class 1.
Cost, £125, or 4¼d. per ft. cube.
Foundations, extra £20.
Can be duplicated at prices stated. Rooms, 12 ft. 6 in. by 10 ft. 6 in., at £21 extra.
By erecting two together, £6 would be saved; by erecting four together, £12.
Bungalow can be built in three weeks, or less.
Four rooms and accommodation for pantry, coals, and w.c.
Fire-proof floors, fire-resisting linings, wooden framing, iron roof. "Stonwod" fire-proof flooring.
Roof, Italian pattern iron.
Foundations, brick and concrete.
Aspect of front door, north-west.
Moule's e.c.
Water butts and Abysinnian well.
The exhibitors draw attention to the bungalow's fire-proof construction. "We have found," they say, "that many people take exception to this class of buildings because of the wood flooring and match-boarding, which rendered the buildings liable to fire; and we consider that by substituting a fire-proof floor on concrete foundation in place of wooden flooring and joists, and a fire-proof lining (composed mainly of asbestos) in place of match-boarding to walls and ceilings, we have overcome the only reasonable objection to buildings of this description. The extra expense is not more than 15 per cent. The 'Stonwod' flooring is laid in a somewhat similar manner to concrete, and is as silent and warm as wood. The interior lining can be either painted or papered."

5. **S. Lee,** 7, St. Helen's Place, London, E.C.

Bungalow. Class 1.
For temporary occupation.
Prices from £150.
Can be erected in three days.
All on ground floor. Four rooms and kitchen.

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Covered with steel and iron, and made fire-proof when required.

PERMANENT STRUCTURES.

01. **Geoffry Lucas, A.R.I.B.A.,** 2, Vernon Place, Bloomsbury Square, London, W.C., and 23, Brand Street, Hitchin, Herts.

Row of Four Cottages for Garden City, Limited. Class 3.

Cost, £762 11s. 11d., including carriage of materials to site, or 5¼d. per ft cube.

Can be duplicated at same price.

Each cottage, two floors. Living-room, 14 ft. 4½ in. by 11 ft. 3 in. by 7 ft. 6 in., with range. Scullery, 10 ft. 6 in. by 9 ft. by 7 ft. 6 in. Bed rooms, 14 ft. 4½ in. by 9 ft. by 10 ft., 6 ft. 6 in. by 12 ft. by 10 ft. 8 ft. 9 in. by 7 ft. 7½ in. by 10 ft. Pantry, cupboard, copper, bath, sink, coal hole, w.c., and covered shed.

Walls, brick, 9-in. Lias lime rough cast for upper storey.

Floors, timber.

Roof, tiles.

Foundations, lime concrete, and lime concrete bed under floors.

Aspect of front door, south.

W.C. Water from Company. Some rain-water caught in butts. Drainage to sewer.

The intention has been to keep the design as simple as possible, to make the buildings "sit well" on the ground, and to look like cottages, not small houses. Although simple, an effort has been made to obtain dignity, and an architectural treatment, without extravagance.

The baths are fitted with moveable wood covers.

01. **Geoffry Lucas, A.R.I.B.A.,** 2, Vernon Place, Bloomsbury Square, W.C., and 23, Brand Street, Hitchin, Herts.

Row of Four Cottages for Garden City, Limited. Class 3.

Same particulars as for Mr. Lucas's other row of four cottages.

01. **Geoffry Lucas, A.R.I.B.A.,** 2, Vernon Place, Bloomsbury Square, London, W.C., and 23, Brand Street, Hitchin, Herts.

Pair of Cottages, near the Common Norton, for Mr. W. Hummerston. Class 4.

Cost, £400, including cartage of material to site, contingencies, drainage barn building, or 5¼d. per ft. cube.

Two floors. Front room, 14 ft. 6 in. by 10 ft. 6 in. by 7 ft. 6 in. (one living-room slightly larger than the others). Kitchen, 14 ft. 6 in. by 10 ft. 7½ in. by 7 ft. 6 in., with range and bath. Scullery, 6 ft. 6 in. by 5 ft. 6 in., sink and copper. Coal hole, larder, e.c. Bedrooms, 14 ft. 6 in. by 8 ft. 3 in. by 10 ft., 12 ft. 9 in. by 7 ft. 3 in. by 10 ft., 9 ft. 9 in. by 7 ft by 10 ft.

MACFARLANE'S CASTINGS.

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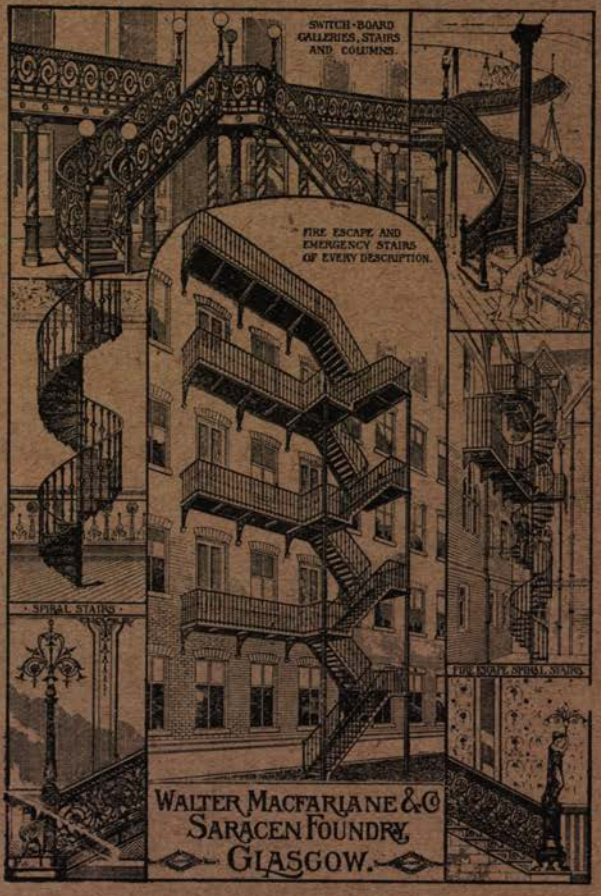
BALCONIES
TERMINALS
FLAGSTAFFS
ALTAR RAILS
ORNL. ROOFING
CLOCK TOWERS

BATHS:
PORCELAIN, VITREOUS AND METALLIC ENAMELLED AND JAPANNED



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GATE PIERS
R. W. PIPES
BATH SINKS
WASHSTANDS
GARDEN SEATS
SEAT STANDARDS
TROUGHS
SCHOOL FITTINGS

MACFARLANE'S GLASS ENAMELLED DRAIN & SOIL PIPES

FIRE ESCAPE AND EMERGENCY STAIRS,

VARIOUS DESIGNS AND WIDTHS.

ELECTRIC LIGHT PILLARS, BRACKETS, CARRIERS, AND WIREWAYS.

STABLE FITTINGS, Plain and Ornamental Designs, a Speciality.

STALLS, LOOSE BOXES, MANGERS, HAY RACKS, HARNESS ROOM AND STABLE YARD FITTINGS.

Illustrated Catalogues, Price Lists and Estimates on application.

Walls, 9-in. bricks.
Floors, timber.
Roof, tiles.
Foundations, lime concrete, and lime concrete bed under floors.
Aspect of front door, south.
E.C. Water from Company. Rain-water caught in butts. Drainage from sink waste to cesspool, 50 ft. away from house, till the sewer is continued along the road.

The instructions were to use white Arlesey bricks and sash windows, both of them difficult things to use, the sash windows particularly so, in a small building, the height of which had to be kept as low as possible on account of cost.

02. C. M. Crickmer, Architect, 1, Lincoln's Inn Fields, London, W.C., and Elmscott, Letchworth, Garden City, for **May Godsal**, 11, Markhouse Avenue, Walthamstow.

Group of Four Cottages. Class 3.
Builder's estimate, £600 the four; rather less than 4d. per ft. cube.

Living-rooms, etc., on ground floor. Bedrooms on first floor, viz., four in one cottage, three in two cottages, and two in one cottage. One of the cottages—Living-room, with range, etc., 15 ft. 6 in. by 12 ft. 9 in. Back room, with copper, bath (table), sink, etc., 14 ft. by 9 ft. Bedrooms (average), 14 ft. 6 in. by 9 ft. 4½ in., 12 ft. 4½ in. by 9 ft. 1½ in., 9 ft. by 9 ft. 1½ in., smallest, 8 ft. by 9 ft. Large fixed cupboard out of living-room and chief bedroom. Larder, coals, covered space, and e.c.'s.

Walls, 9-in. brick (red, bottom), 9-in. brick and rough cast (top).
Floors, 6-in. concrete over site; then sleeper walls, 4-ft. by 2-ft. joists, and 1-in. grooved and tongued boarding.
Roof covered with pantiles.
Aspect of front door, south-east.
E.C. Water from mains and tubs to hold rain-water. Drainage to cesspits.

The whole of the cottages, ground and first floors, are built with brick walls, and also ground floor partitions in cement. There are porches to the entrance doors.

04. G. Christie Miller, 60, Romford Road, Stratford, London, E.

Three Pairs of Semi-detached Cottages. Class 2.

Cost, £134, including builder's profit but excluding "model cottager" and bath; cost, excluding builder's profit, £120 per cottage.

Twenty-two similar cottages are being erected at Letchworth.

Can be erected in two months.

Two floors. Living-room, with model cottager, 15 ft. by 12 ft. 6 in. by 8 ft. Scullery, 9 ft. 6 in. by 9 ft. 4 in. by 8 ft., plus bath recess. Larder. W.C. Coal shed. Bedrooms, 12 ft. 6 in. by 9 ft. 3 in. by 9 ft., 9 ft. 9 in. by 8 ft. 5 in. by 9 ft., 12 ft. 6 in. by 6 ft. 4 in. by 9 ft.

Walls, brickwork 9 in. thick; internal partitions of Mack slabs.
Floors, wood blocks.
Roof, tiles.
Foundations, concrete.
Aspect of front door, south-east.
W.C. Water supply from mains. Rain-water collected in butts.

The bedrooms are formed in the Mansard roof, "this method of construction being undoubtedly the cheapest."

Bungalows, Cottages, Club Houses, Schools, and all kinds of Country Buildings.

Specialities: Timber and "Wire-Wove."

See Labourer's £150 Cottage, No. 77, in Garden City Exhibition.

THE WIRE-WOVE ROOFING COMPANY,

108, Queen Victoria Street, London, E.C.

RUBEROID

ROOFING. . .
DAMP-COURSE .
AND FLOORING.

ECONOMICAL AND DURABLE.

A ROOFING SUITABLE for ALL BUILDINGS.

Extract from "The Builder," 15th April, 1905.

THE SURVEYOR'S INSTITUTION. . . . . . Mr. Munro Cautley then read a paper on Farm Buildings. . . . . "For a roofing material he should propose Ruberoid. With galvanized iron the extremes of heat and cold were so great, whilst there was always the annoyance of condensation, and the expense of tar and paint if it was to be made lasting. He had used a good deal of Ruberoid, and he believed it to be 40 per cent. lighter and 20 degrees cooler than iron. It was, further, cheap, easy to lay and requires no coating, and, what was most important, did not contaminate water, so that the cattle could drink what was collected from the roofs. Lastly, it could be turned up against a building to form a gutter, where lead would otherwise have to be employed."

For further particulars call at our Stand in the Accessories Exhibition, or write us below.

ROBERT W. BLACKWELL & Co., LTD., 59, CITY RD., LONDON, E.C.

The architect is Mr V. Dunkerley, of 8, Frederick's Place, Old Jewry, London, E.C.

04. G. Christie Miller, 60, Romford Road, Stratford, London, E.

Pair of Semi-detached Cottages. Class 4.

Cost, including builder's profit, £207 10s. each, or 5½d. per ft. cube; cost, excluding builder's profit and cottager, £188, or £31 6s. 8d. per room.

Can be erected in two months.

Two floors. Living-room, with model cottager, 14 ft. by 11 ft. by 8 ft. 6 in. Parlour, with register grate, 12 ft. 6 in. by 12 ft. 6 in. by 8 ft. 6 in. Scullery, 8 ft. by 7 ft. Bedrooms, 11 ft. by 11 ft. by 10 ft., 12 ft. 6 in. by 9 ft. by 10 ft., 11 ft. by 7 ft. by 10 ft. Linen-room, larder, coals, w.c., and folding bath.

Walls, dark red asbestic bricks 9 in. thick; inner partitions Mack slabs.

Floors, wood block and red quarries.

Roof, tiles.

Foundations, concrete.

Aspect of front door, south-east.

W.C. Water from mains.

These houses are not on the Exhibition ground, but in a road off North Road.

The w.c. and coals are entered from a porch. The staircase and landing are well lighted.

The architect is Mr. V. Dunkerley, of 8, Frederick's Place, Old Jewry, London, E.C.

05. Letchworth Building Syndicate. V. Dunkerley, Architect.

Eight Pairs. Classes 2 and 4.

For particulars see No. 43.

6a. Wm. Henman, F.R.I.B.A., and **Thos. Cooper, F.R.I.B.A.,** 19, Temple Street, Birmingham.

A single cottage, Class —.

A pair of cottages, Class —.

Cost averages £100 per cottage.

All on ground floor. Living-room, 14 ft. by 11 ft. 9 in. by 9 ft. with, in addition, bay window. Range fireplace. Sink recess. Food cupboard and shelving. One, two, or three bed recesses, respectively 7 ft. by 7 ft. by 9 ft.

Walls, one brick thick.

Boarded floors in living-room and bed recesses; tiled elsewhere.

Roof, tiles.

Foundations, brick.

Aspect of front doors, south and west.

Glazed stoneware "Flush down" W.C. Rain-water discharged into drain. Drainage to sewer.

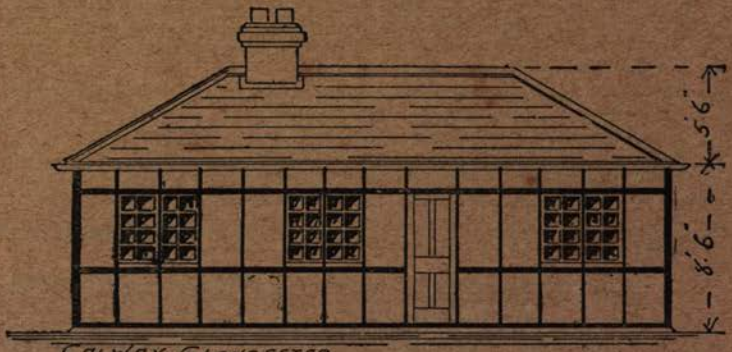
The object of the architects is the provision of healthy, self-contained, economical dwellings for the working poor, giving the minimum amount of accommodation necessary in a compact form. So that the rent may be low and the labour required in keeping the dwellings clean and tidy may be easy.

The Best £150 Cottage

IS BUILT OF

CEMENT SLABS.

(CALWAY'S PATENT.)



ELEVATION.

IT CONTAINS—Large Living-room, Kitchen, Scullery,
One Double and Two Single Bedrooms,
with Earth Closet and Coal Store.

Quickly Erected. — Absolutely Dry.

FIT FOR OCCUPATION SAME DAY AS COMPLETED.

Local Authorities will Permit Their Erection.

ARE VERY PICTURESQUE. WILL LAST 100 YEARS.

Built in One or Two Storeys—Singly, or in Twos.

Complete Catalogue of every description of Portable or Permanent Building, Free.

WILLIAM CALWAY, Ltd., GLOUCESTER,

Contractors for all kinds of Building Repairs.

"The dwellings with one bed recess would supply the wants of a married couple without children or with a young child or two, an unmarried woman or elderly couple.

"The dwellings with two bed recesses would suit a married couple with young family, or with only boys or only girls.

"The dwellings with three bed-recesses would serve for a married couple with children of both sexes.

"When required the bed recesses would be provided with bedding accommodation as in ships' cabins, but kept clear of the wall around. In towns, dwellings could be planned on similar lines several storeys in height approached by public stairways.

"It must be distinctly understood that these dwellings are intended for the working poor only, those who can pay but a moderate rent for a self-contained home, the hope being that if a reasonable proportion of similarly small, self-contained dwellings were erected in town and country the herding together of families in larger houses, not properly adapted as separate dwellings, might be diminished and one phase of the housing problem be partially solved.

"In designing the cottages to be erected at Letchworth according to our plans the exterior has been treated in the simplest manner to suit internal requirements, in the belief that straightforward simplicity is most appropriate for the purpose.

"Such dwellings are not intended to compete with houses for the well-to-do working classes.

"As long ago as 1876 Mr. Henman dealt with this subject in a paper he read to the Cleveland Institute of Engineers, and was published in the Institute's Transactions', but those who interest themselves in the housing question too often fail to regard the matter from anything but a sentimental standpoint, they fail to realise the real requirements of the working poor, and it is our opinion that the matter must be attacked from the lowest standard, because the well-to-do working-man can take care of himself—it is the slums and slum dwellers who must first be properly provided for."

11. **John McManus,** 237, Hammersmith Road, London, W.

Cottage. Class 1.

Cost, £150, or 5d. per ft. cube.

Could be duplicated for £173.

Could be built in twenty-one working days.

All on ground floor. Living-room, with range, 10 ft. 6 in. by 11 ft. 6 in. by 9 ft. 3 in. Bedroom, with Register stove and iron mantel, 9 ft. 6 in. by 11 ft. 6 in. by 9 ft. 3 in. Two bedrooms, 11 ft. 6 in. by 8 ft. 6 in. by 9 ft. 3 in. Scullery, with boiler and sink, 6 ft. by 7 ft. by 8 ft. Pantry. Three cupboards. Shed for coals, and e.c. or w.c.

Walls, timber and boarding, and part cement, 6 in. thick.

1-in. deal floors for all rooms, and cement floors to scullery and e.c.

Roof, timber, with battens and tiles. (This was intended to be in iron, but as the cottage is to remain tiles are included.)

Foundations, cement concrete and brick.

Aspect of front door, north-west.

W.C. for the city; e.c. for country. Water supply from mains. Rain-water tubs in country.

The walls being of timber, lined inside with match-boarding and outside partly cement slabs and partly boarding, with overlays repre-

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WASHABLE WATER PAINTS

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ESTABLISHED OVER 100 YEARS.

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The Olsina Water Paints entirely replace the Old Distemper. They are inexpensive, non-poisonous, and highly sanitary, and are suitable for Hospitals, as well as every form of Domestic Dwellings, from the simplest to the most expensive. There are about 100 colours, which are carefully selected and satisfy the most refined taste. Olsina Water Paints are sent out in Paste, to be thinned with Cold Water for use. In a few weeks after application they become washable.

Circulars, Specimens, &c., on application to

MANDER BROTHERS, WOLVERHAMPTON,

Makers of Varnishes, Paints, Colours, Enamels, &c.

Mrs. Banning, Station Hotel, Letchworth, near the Exhibition Plots and Station, will be happy to supply printed matter and patterns illustrating the Olsina Water Paint, during the term of the Exhibition. Mrs. Banning will also show her hall and two rooms done with the above article.

senting open timber work, the building is quickly erected, and is ready for immediate occupation. It is claimed that an artistic appearanec is obtained, and that the cottage is suitable for the better class of artisan.

It is stated that a good appearance would be obtained by using galvanised corrugated iron for roof at a cost representing quite 10 per cent. less on the entire cost of cottage.

12. **William Scott,** 27, King William Street, London, E.C, Architect; **E. S. Ingham,** 117, Hop Exchange, E.C.

Cottage. Class 1.

Cost, £145 2s. 6d., or 4½d. per ft. cube.

Built in pairs, the saving would be 5 per cent.

Could be erected in a month.

Ground floor only. Living-room, with range, 13 ft. 6 in. by 13 ft. by 10 ft. Scullery, with portable copper, sink, bath with fall-dresser top as cover. Pantry, cupboard, and fuel house. Bedrooms, 1,020 cubic ft., 810 cubic ft., and 678 cubic feet.

Walls, steel channel and angle bolted together, and covered with metal lathing to form walls, plastered inside, and plastered outside with cement and pebble dash. Thickness of same, 6 in., with 3½-in. cavity between the plaster.

Floors, wood joists on concrete base, and 1-in. wood floors to all rooms, and cement floors to scullery, w.c., and fuel store; tiles to lobby.

Roof, tiles fixed to steel battens with wire, and bedded in lime and hair.

Foundations, concrete all over site.

Aspect of front door, south.

Pedestal w.c. Rain-water to discharge into tubs with overflows. Drinking water from main. Four-inch drains with two manholes or inspection chambers.

Features of the cottage are stated to be its fire-resisting construction, materials easily obtainable and transferable to any site, the adaptability of material to suit any plan or elevation, the short time taken in erection, and the small cost on certain sites, etc.

13. **The British Metallic Roofing and Constructional Company,** Eaglescliffe, R.S.O., co. Durham.

Cottage. Class 1.

Cost, £148.

No extras. Can be duplicated for £156 on purchaser's foundation.

Could be built in three weeks.

All on ground floor. Sitting-room, 14 ft. by 11 ft. Kitchen, 11 ft. by 9 ft. 6 in. Bedrooms, 14 ft. by 10 ft., 11 ft. by 10 ft., 9 ft. by 8 ft. Pantry. Two cupboards. W.C. Coal-house; covered way to latter. Verandah in front.

Walls, steel sheeting (painted), with layer of slag wool between all walls, and also under roof.

Concrete foundations and under floors, which are of wood.

Roof, galvanised-steel sheeting (painted), with patent interlocking arrangement and girders.

Aspect of front door, north.

Water-closet. Water and drainage supplied by Garden City Company.

Awarded the ONLY GOLD MEDAL for Facing and Paving Bricks, together with TWO MEDALS for Stoneware Goods at the Health Exhibition, 1884; SILVER MEDAL for Terra-Cotta at the Inventions Exhibition, 1885; also Seven Prizes for Superiority of Manufacture, including PARIS GRAND MEDAL, 1878; the Certificate of Merit of the Sanitary Institution of Great Britain, and the Award of Merit at the International Exhibition, South Kensington, 1881.

Manufacturers of

WHITE, COLOURED, and SALT GLAZED BRICKS.

STONEWARE SANITARY PIPES AND FITTINGS of the Very Highest Quality.

BUFF GRANITIC VITREOUS PAVING BRICKS,

as selected by the War Office Authorities and extensively used in many Barrack Stables.

The "OLYMPIA" pattern designed by CANDY & Co. is specially recommended. The absence of Cross Grooves makes it an easy matter to sweep a stall down clean, and the longitudinal grooves provide foothold and rapid drainage.

BUFF FACING and MOULDED BRICKS.

ARCHITECTURAL TERRA-COTTA.

FIRE BRICKS, &c.

GARDEN VASES and EDGING TILES.

Etc., etc., etc.

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THE "DEVON" FIRE.

ECONOMICAL and DECORATIVE.

Constructed on scientific lines, with fire-clay solid bottom, faced with glazed bricks.

Price from £2 upwards.

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The special features claimed are a considerable saving in labour; strength due to the interlock of girders; durability—liability to corrosion is minimised, and nuts, bolts, nails, and screws are practically dispensed with; appearance effective, and comfortable to live in; easily and quickly erected; a good roof; protection from cold and heat by the insertion of slag wool, hair felting, etc., fire-proof, sanitary, and easily decorated.

14. **Green Bros.**, Whithington, near Chesterfield. Architect, **Percy Houfton,** Furnival, Chambers, Chesterfield.

Cottage. Class 1

Cost, about £150, or about 3½d. per ft. cube.

No extras.

Can be duplicated for about £175, including profit, architect's fees, and men's travelling expenses.

Could be erected in two months.

3½ per cent. would be saved by erecting two together; 5 per cent. by erecting four.

Ground and first floors. Living-room, with range (extreme measurements), 18 ft. by 12 ft. Scullery, with copper, 12 ft. 3 in. by 7 ft. 6 in. Bedrooms (extreme measurements), 18 ft. by 10 ft. 8 in., 12 ft. by 9 ft., 8 ft. 9½ in. by 8 ft. 8 in. Larder. Cupboard-dresser and cupboard in large bedroom. Coal place and w.c. opening into outer lobby.

Walls, 9-in. brickwork in mortar, cement rough cast.

Floors, living-room, quarries in cement; rest of ground floor, granolithic cement. All on 6-in. concrete bed.

Roof, local red tiles.

Foundations, brickwork in mortar, twice thickness of walls.

Aspect of front door, north-west.

W.C. Rain-water butt. Water laid on from main. 4-in. glazed, socketted, sanitary pipes, with cement joints, intercepting chamber with trap, and 4-in. inlet vent pipe and 4-in. stack carried up above roof.

The inclusion of the coal place, w.c., and open lobby within the rectangle of the ground plan provides more space on the bedroom floor. The living-room and two of the bedrooms have windows to the south. The double windows to the living-room and the principal bedroom give facilities for cross ventilation. The inside walls are finished in "Durexo" distemper.

15. **Stanley Barrett & Driver,** Architects, 23, York Place, Baker Street, London, W. Builders, **Messrs. Seymour & Sons,** Hitchin.

Cottage. Classes 1 and 4.

Cost, £150.

A bath is £10 extra.

Can be duplicated in any district at the same cost, providing the conditions are the same.

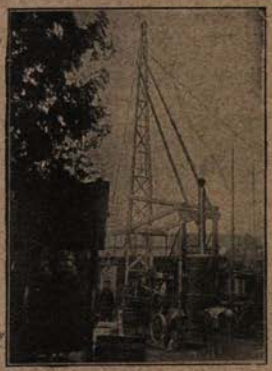
Could be built in from two to three months, or constructed in Kent slabs, at the same price, in six to seven weeks.

By erecting four, 10 per cent. would be saved, subject to the local by-laws not requiring party wall to be carried through roof, etc.

Ground and first floors. Living-kitchen, with independent range, 12 ft. by 11 ft. 9 in. Parlour (sitting-room), with mantel register, 10 ft. 3 in. by 8 ft. Scullery, with copper, 10 ft. by 6 ft. 9 in., extreme measurements. Three bedrooms, all with fireplaces (1) 15 ft. 3 in. by 10 ft., (2) 10 ft. 3 in. by 6 ft. 9 in., (3) 7 ft. 9 in. by 7 ft. 9 in., plus

64000

Water Supply



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TUBE WELLS

for pure water, free from atmospheric and surface pollution. . .

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Works: FERRY WHARF, LITTLEHAMPTON, SUSSEX.

dressing-table. Pantry, 4 ft. 6 in. by 2 ft. Three cupboards. Fuel house and w.c.

Brick walls, 9 in. thick, covered on outside with cement, and then rough-cast thrown on.

The ground floors are solid.

Roof, patent tiles about 1 in. thick.

Foundations for walls, concrete with brick footings.

Front of cottage faces the garden, nearly due south. Entrance door and porch are south-east, but seat in porch faces south.

W.C. Rain-water taken into butts with overflows. Drainage taken into sewer.

The architects contend that for an ideal labourer's cottage a small parlour is an absolute necessity. Another feature is the very large bedroom. The labourer spends more time in his bedroom than any other room in the house. The porch and seat are considered to have their uses in keeping the husband away from the public-house. The front of the cottage faces the garden instead of the road, which encourages the labourer to keep his garden in good order, and gives him a better outlook.

The architects state that they have special methods of construction by which they save 20 to 25 per cent. on the cost of building. The walls are all built of brick treated externally with a coat of cement, and while this is wet, small stones, mixed with lime, are thrown on. This makes a 9-in. wall as good as an 18-in. one.

16. **Stanley Barrett & Driver,** Architects, 23, York Place, Baker Street, London, W. Builders, **Messrs. Seymour & Sons,** Hitchin.

Detached Cottage. Class 4.

Cost, £210, or 4¼d. per ft. cube.

No extras.

A similar cottage, under similar conditions, could be erected in any district at the same cost, in from two to three months, or in Kent slabs in six weeks. By re-arranging plan and elevation, but giving the same accommodation, a saving of about 10 per cent. would be effected by erecting a pair, and about 15 per cent. saving if a block of four were erected.

Ground and first floors. On ground floor—Kitchen, with portable self-setting range, dresser, etc., 19 ft. by 12 ft. Sitting-room, 12 ft. by 10 ft. Scullery, with portable copper, 7 ft. by 6 ft. 6 in. Larder, 10 ft. by 3 ft. E.C. and coal-house. Bedrooms, 12 ft. by 10 ft. 6 in., 12 ft. by 10 ft. 3 in., 12 ft. by 8 ft. Box-room, 15 ft. by 4 ft. 6 in. Cupboard.

Exterior walls are constructed of 9-in. brick, covered externally with 1 in. of Portland cement, and rough cast.

Floors, special solid construction to ground floor, having all the advantages of a wood block floor, but costing 20 per cent. less than ordinary floors.

Roof, patent red tiles.

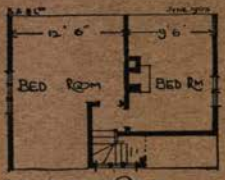
Foundations, concrete under all walls and over entire site of house.

W.C. Water from main. Rain-water in butts. Connected with sewer.

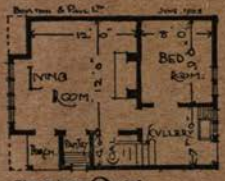
Specially designed for a pleasure cottage. The rooms are so planned that they get the sun from early morning to late afternoon. The great feature is the kitchen, which is intended to be used as a sitting-room. The stores and larder are ingeniously ventilated by an air shaft taken up to the roof. In the largest bedroom is a fold-up bath, with hot and cold water. There is also a large box-room, which could be turned into a bath-room, and there is also room for another small bedroom

AN IDEAL COTTAGE FOR £135 0 0.

Designed on economical but artistic lines for the use of GARDENERS, LODGE KEEPERS, GAMEKEEPERS, &c. . . . Suitable for HOLIDAY HOMES, SEASIDE RESIDENCES, &c., &c.



FIRST FLOOR PLAN.



GROUND PLAN.

Registered Design.

Comprising PORCH, LIVING-ROOM, SCULLERY, PANTRY, COAL-HOUSE, AND THREE GOOD BEDROOMS.

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THE PATENT TILE WORKS

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The additional cost of these would be about £35, so that for £245 a house could be built with kitchen, sitting-room, four bedrooms, and a bath-room.

The elevations are so designed that the house could be turned any way. The woodwork is stained green throughout and varnished, so that the beauty of the grain of the wood shows.

17. **Picton & Hope**, Builders, Garden City, Herts.

Cottage. Class 1.

Cost, £150, or 3¾d. per ft. cube, without profit.

Extras, Corne's range, £10; oak fencing, £3; Jarrah flooring, £1.

Can be duplicated at 4½d. per ft. cube. There would be a saving of 2½ per cent. in pairs; 5 per cent. in fours.

Could be erected in two months.

Two floors. Living-room, with range, 15 ft. by 13 ft. by 8 ft. Parlour, 11 ft. by 13 ft. by 8 ft. Scullery, irregular. Bedrooms, 13 ft. by 11 ft., 12 ft. by 9 ft. 9 in., and 13 ft. by 11 ft. Pantry, coal-house, etc.

Walls, 9-in. brick.

Floors, Jarrah flooring and tiles, ground floor; 1-in. tongued and grooved deal flooring, first floor.

Roof, tiled.

Foundations, concrete.

Aspect of front door, south-east.

W.C. Butts. Drain to sewer.

The builders lay stress on the accommodation provided.

18. **Wm. Simpkiss**, Builder and Contractor, Hunslet, Leeds.

Cottage. Class 1.

Cost, £150, or 3½d. per ft. cube.

Could be duplicated for £150 and travelling expenses, and 12½ per cent. for builder's profit and necessary drawings for local authorities.

Could be built in three months.

Two cottages could be built at a saving of 2½ per cent.

Ground and first floors. Living-room, with kitchener, 14 ft. by 13 ft. 3 in. by 8 ft. 6 in. Lobby, 6 ft. 9 in. by 4 ft. 6 in. by 7 ft. 6 in. Scullery, with set-pot and sink, 13 ft. by 8 ft. by 8 ft. 6 in. Bedroom, with fireplace, 14 ft. by 9 ft. 6 in. by 8 ft. 6 in. Bedroom with fireplace, 13 ft. by 8 ft. by 8 ft. 6 in. Bedroom without fireplace, 9 ft. 6 in. by 6 ft. 6 in. by 8 ft. 6 in. Larder, 6 ft. by 4 ft. 1 in. by 7 ft. 6 in. Coals, 7 ft. 10 in. by 4 ft. 5 in. by 7 ft. 6 in. One large cupboard in living-room.

Walls, brick, 9 in. thick.

Floors, wood and concrete.

Roof, tiled.

Foundations, brick or concrete.

Aspect of front door, south-west.

W.C. Local water supply. Local sewer.

The cottage is built fronting the south-west, so that all doorways and windows may receive sunshine at some portion of the day, thus effecting a saving of fire and lighting. No windows face toward the north, nor do any projections in the outline of the building occur to cast shade or obscure the view.

The arrangement of the door from the entrance lobby to living-room ensures privacy should the front door be set open.

The arrangement of the smoke-flues is practical and economical.

JOHN P. WHITE,

THE PYGHTLE WORKS, BEDFORD.

Palm Boxes.
Dovecotes.

Old English Garden Seats. Chalets. Trellis Arbours. etc.

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They are gathered into one stack, and carried well above the roof to avoid down-draught.

There is a convenient arrangement of w.c. and dust-bin. By arranging the lobby and offices as built, the height of all these is kept down to a minimum and roofed over by one continuous roof.

19. **Lionel F. Crane,** 13, Holland Street, London, W. Builder, **Mr. Frank Newton,** Hitchin.

Cottage. Class 1.

Cost, £150, or 6d. per ft. cube.

Under similar local conditions, a similar cottage could be built at same price, plus architect's fees.

Could be built in ten weeks.

Ground and first floors. Living-room, 14 ft. 6 in. by 14 ft. 6 in., with range. Scullery, with bath, sink, and copper, 8 ft. 6 in. by 9 ft. 3 in. Two bedrooms, 10 ft 9 in. by 9 ft. 6 in.; one 14 ft. by 9 ft. 3 in. Larder, cupboards, etc. W.C. and shed for fuel.

Walls, timber-framed building on concrete foundations. Studding, 6 in. by 2½ in.; corner-posts, 6 in. by 6 in.

Wood floors on first floor. Wood blocks on concrete to living-room.

Roof, old local tiles on boarding and battens.

Foundations, lime and cement concrete.

Aspect of front door, south-west.

W.C. (O'Brien, Thomas & Co.'s cottage pan and trap). Three rain-water butts. Water laid on from Garden City Company's main. Four-inch whole socketted stoneware pipes connected with Garden City Company's sewer, all according to by-laws, etc.

The cottage is built principally of timber, on concrete foundation. South aspect for living-room. Bath with hot and cold water fitted. Large and airy bedroom. Brick fireplaces, with sliding bars, etc.

The woodwork outside (weather-boarding) is treated with carbolineum to prevent rotting.

This cottage has been furnished in an artistic but inexpensive style by Messrs. Heal & Son, of Tottenham Court Road, W.C.

20. **The Bournville Village Trust. John H. Barlow,** Secretary, Estate Office, Bournville.

Cottage. Classes 1 and 4.

Cost, £135 4s.; with bath, £138 9s. Contents, 7,500 cube feet at 4¼d.

Gas fittings as supplied to Bournville Estate Cottages, including stove, £2 10s. extra.

Ground and first floor plans. Living-room, with oven grate, 14 ft. 6 in. by 11 ft. 6 in. by 8 ft. 3 in. Parlour, with grate, 9 ft. 1½ in. by 10 ft. by 8 ft. 3 in. Bedrooms, 11 ft. 9 in. by 10 ft. by 8 ft., 11 ft. 6 in. by 8 ft. by 8 ft., 6 ft. 3 in. by 11 ft. 6 in. by 8 ft. Entrance lobby. Coals Larder. Dresser. Cabinet bath.

Walls, bricks (red), 9 in. outside, 4½ in. inside.

Floors, 1-in. grooved and tongued boards and 9-in. quarries.

Roof, Broseley tiles; 12-in. by 6-in. blue tone slates specified, but prohibited by Garden City.

Footings of brickwork, 18 in. wide, on solid bottom soil.

Aspect of front door, north-east; door at side living-room, west.

W.C. (Granitas pedestal). Galvanised-iron rain-water tanks. Drainage, 4-in. stoneware socketted pipes jointed in cement connected to sewer.

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"The central idea has been to give the maximum cubical contents for the least possible expense, compatible with good construction and the selection of materials based on the Trust's experience in the erection of some 600 houses on the Bournville Estate.

"We have found that the above are essential to the economy of erecting and maintaining small property. The cost limit of £150 entails the most severe external treatment, but we have found that a few years' growth of creepers and shrubs quite eclipses man's efforts at decorating exteriors, if proportional treatment be maintained throughout.

"Our contract sums were £149 and £402 for this single cottage and the pair in Class 4 respectively, and these included what we usually comprise in a house, viz., drainage complete with sewer connections, iron gas pipes and service from main, and baths, etc., complete. On May 11th (two months after contract signed) we received intimation that a rebate would be allowed on several items, thus reducing our totals to £135 and £376, to which we added £8 and £17 for tiles in lieu of slates, which latter were forbidden. £15 and £44 might have been advantageously expended in improving the cottages had we known of these arrangements sooner.

"A speciality is made of privacy in every room, as the avoidance of passage rooms greatly adds to home comfort. The cabinet bath in the single cottage, at a cost of £3 5s. including cabinet, and the bath-room in addition to the six rooms specified in Class 4, are also features of note. The total cost of installation of the boiler at rear of oven grate, tanks, piping, and bath with taps, etc., complete, is £10 per house. Tobin ventilators are provided in every room.

"Tool-houses form a valuable addition (6 ft. 7½ in. by 4 ft.) in the pair, as the average shed erected by a tenant is not a thing of beauty. Sash doors opening on garden give the cottage dweller the advantages of larger property."

21. H. Cayley, A.R.I.B.A., Bank Chambers, Rothwell, Kettering.

Detached Cottage. Class 1.

Cost, £145 (without builder's profit and paths), or about 4½d. per ft. cube.

Cottage could be erected in two months.

Can be duplicated for £175, paid at completion, subject to fluctuations of prices, materials, and labour, and to a suitable builder being found. Erection of two together would save 10 per cent.; four, 15 per cent.

Ground and first floors. Living kitchen, 12 ft. 6 in. by 11 ft. 6 in. by 7 ft. 6 in., with combined heating and cooking range (bay extra). Scullery, 9 ft. by 8 ft. by 7 ft. 6 in., with copper. Three bedrooms, partly in roof (16 ft. 4 in. by 8 ft. by 8 ft. 6 in. with fireplace, 11 ft. 6 in. by 6 ft. 9 in. by 8 ft. 6 in. with fireplace, 9 ft. 3 in. by 8 ft. 1 in. by 8 ft. 6 in.). Pantry. Coal place.

Walls, 9-in. brick, rough cast.

Boarded floors in living-kitchen and bedrooms; quarry tiles in lobby; bricks in scullery, pantry, w.c., and coal place.

Roof, hand-made sand-faced Bedfordshire red roofing tiles.

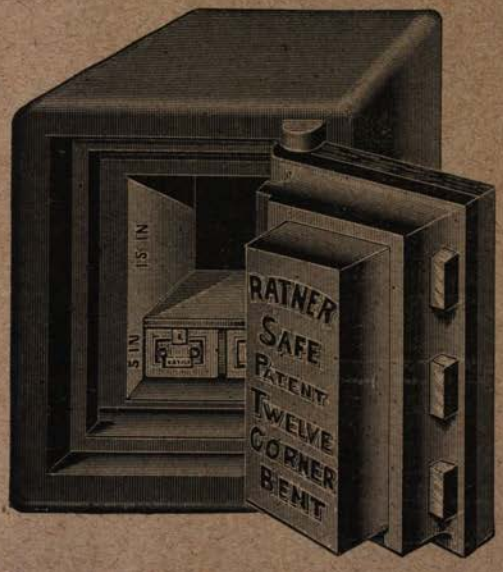
Foundations, concrete on clay passing down into chalk.

Front door, north-west.

A simple pedestal closet. Butt to take rain-water. Water laid on from mains. Drainage to sewer.

Exhibitor calls attention to the compact planning.

RATNER SAFES.



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BEN HARTLEY.

P.O. BOX 50,
EAST LONDON,
March 24th, 1905.

THE RATNER SAFE CO.,
JOHANNESBURG.

Dear Sirs,

Referring to your favour of the 20th instant, *re* your Safes, and the destruction of my premises by fire on the 22nd November last, I have pleasure in stating that your Safes were surrounded by several tons of Carriage and Wagon wood burning fiercely for several hours. I really did not expect them to stand such a strong fire for such a length of time.

In the afternoon, after they had cooled down, I had them removed to temporary premises, and without much trouble had them opened with their own keys. I was amazed to find the contents "**INTACT.**"

In fact I cannot speak too highly of the fire-resisting quality of your Safes, and have shewn them to quite a number of people, at the same time recommending them to those who want a really good and reliable Safe. I am sending one by Rail to-day.

I may say that I have purchased one of your large Safes, size 48" × 24" inside measurements, two drawers.

Yours faithfully,
(*Signed*) **BEN HARTLEY.**

RATNER SAFES,

51, Moorgate Street, E.C. Works, Bow, E.

22. **Richard Whitbread, M.S.A., A.R.S.I.,** Architect, Carlton, near Nottingham.

Cottage. Class 1.

Cost, £150; slightly less than 4d. per cube ft.

Could be built in about two months.

One per cent. would be saved by building two together.

Ground and first floors. Living-room, with cottage oven and boiler, 12 ft. by 13 ft. Scullery, with copper and sink, 9 ft. by 9 ft. Three bedrooms, 12 ft. by 11 ft. 4 in., 10 ft. 10 in. by 9 ft., 9 ft. by 8 ft. Larder, two cupboards, bath-room, coal place, and w.c.

Walls, 9 in. thick, Nottinghamshire brick.

Ground floor, "Excelsior" tiles on bed of asphalt.

Roof, red "Vasco" tiles.

Foundations, brick.

Aspect of front door, south-west.

W.C. Tubs, until other arrangements can be made. Drains to sewer.

This cottage is designed to meet the requirements of by-laws based on the Model By-laws of the Local Government Board. Compactness of plan is secured by grouping the apartments round a small hall. No room acts as a passage. There is only one entrance door. This being south-west does not admit the cold winds. Its position meets all the requirements of a cottage. The usual scullery door is dispensed with; this arrangement conduces to comfort without sacrificing convenience. No room has more than one door; draughts are thereby reduced to a minimum. Bedrooms are well lighted. Each has an alternative position for the bed. A small bath-room is on ground floor, placed so as to get hot water from the scullery copper. Copper is fitted with patent steam exhaust. No steam whatever escapes from the copper into the room. The windows are placed to secure sunny rooms. The sills are low so that children can look out.

The ground floors are of "Excelsior" concrete tiles laid on a bed of Vickers & Field's asphalt.

A shelter (with seat under), formed by the continuation of the out-office roofs, protects the door and mat from wet. The division walls upstairs are stud and plaster, filled with McNeill's asbestos.

A system of lighting by Carmien portable gas (suitable for districts where there is no coal gas) can be seen in the living-room.

23. **Robert Bennett** and **Wilson Bidwell**, Architects, Letchworth, near Hitchin.

Cottage. Class 1.

Cost, £150, including drains and cartage but not builder's profits; 4½d. per ft. cube.

Could be duplicated at £170.

If two together were built, 5 per cent. would be saved; if four, 7½ per cent.

Cottage could be built in six weeks.

Ground floor and first floor. Living-room, with range and dresser, 15 ft. by 12 ft. by 7 ft. 6 in. Kitchen, 12 ft. 9 in. by 8 ft. 9 in. by 7 ft. 6 in. Bedrooms, 12 ft. 9 in. by 11 ft. by 8 ft. 6 in., 12 ft. 9 in. by 8 ft. 9 in. by 7 ft. 7½ in., and 9 ft. 5½ in. by 10 ft. 7 in. by 7 ft. 7½ in. Larder, coal place, w.c., and box-room.

Walls, 9-in. brickwork, and weather-boarding on a wood framing.

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Exhibition Cottage, Registered Design.

Price, including Builder's profits, without carriage and boundary fence, £165.
Railway Carriage cost Cottage took 21 days to build.
Ground Rent, £1 13s. 9d. per annum.
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"Hayes" Reversible Fire-proof Window Sashes & Casings.

Floors, concrete and tiles.
Roof, tiles.
Foundations, brick.
Front door faces to the road to the north-west.
W.C. Water butts. Drainage to sewer.

The special features of this cottage are stated as compactness and conomy, combined with a simple architectural treatment made to harmonise with the Hertfordshire district by the use of local materials. The ubic capacity of the bedrooms is 489 ft. in excess of the 2,000 ft. equired, while the living-room contains 1,312 ft. The latter has its rincipal windows to the south-east, with another window to the south-est, giving a view of the main road. The doors of this room have all een kept to one corner, leaving the rest of the room comfortable.

25. **F. Newton,** Builder, Hitchin, Herts. **Harry Prince,** Architect, 15, Clifford's Inn, Fleet Street, London, E.C.

Cottage. Class 1.
Cost, £150, or 5d. per ft. cube.
Could be duplicated for £150.
Could be built in two months.

Ground floor, with two bedrooms on first floor. Living-room, with range, 15 ft. 6 in. by 11 ft. by 7 ft. 6 in. Scullery, with copper, 11 ft. by 8 ft. by 7 ft. 6 in. Bedrooms, 15 ft. by 14 ft. by 7 ft. 6 in., 11 ft. by 9 ft. by 7 ft. 6 in., 11 ft. by 9 ft. by 7 ft. 6 in. Pantry. Cupboard for coal. W.C.

Exterior walls, brick nogging; internal, 6-in. stud partitions. External walls finished with rough cast.

Ground floor, cement concrete finished with boarding in living-rooms; cement rendering in scullery, etc.; first floor, boarded on joists.

Roof, local pantiles.

Foundations, lime concrete.

Aspect of front door, south-west.

Pedestal w.c. Water butts for rain-water. Drinking water on estate. Estate sewer.

Special features:—Porch; central stair leading to landing on first floor; one of the three bedrooms planned on ground floor; external walls of brick nogging covered with rough cast.

26. **Ealing Tenants, Ltd.,** Woodfield Road, Pitshanger Ealing.

Cottage. Class 1.
Cost £150, or 4½d. per ft. cube.
Can be repeated for £150; two together, 4 per cent. cheaper.
Can be erected in two months.

Ground floor and bedroom floor. Parlour, 10 ft. by 9 ft. by 8 ft. 3 in., with cornice, etc. Kitchen, 11 ft. 6 in. by 8 ft. 6 in. by 8 ft. 3 in., with kitchener, dresser, cupboards, etc. Scullery, 6 ft. by 7 ft. 6 in. by 8 ft. 3 in., with sink, copper, and bath fed with hot water from copper. W.C. Shed for coals, etc. Sanitary dust-bin. Bedrooms, 14 ft. by 8 ft. 6 in. by 8 ft. 3 in., 7 ft. 6 in. by 8 ft. 6 in. by 8 ft. 3 in., 7 ft. 6 in. by 11 ft. by 8 ft. 3 in., with ventilators and windows to each.

Walls, 9-in. brick outside right up to roof. Top portion rough-cast outside. All rooms plastered inside, with Keene's angles. Walls inside downstairs, 4½-in. brick; walls inside upstairs, wood partitions, lathed and plastered.

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All floors are wood joists and floorboards.

Roof, covered with tiles with head gutters.

Foundations, 9-in. Portland cement concrete on chalk sub soil.

Aspect of front door, north.

W.C. with water-waste preventer. Rain is collected in iron eaves gutters and falls in iron pipes into rain-water tubs. Drinking and domestic water supply from waterworks. Drainage into main sewer.

It is claimed that this is a thoroughly sound house on Portland cement concrete foundations, very compact, and with everything under one roof. Designed by workmen for workmen to live in.

27. **Allen Foxley, B.A.,** Architect, 5, Victoria Street, Westminster, S.W., acting for **Miss Barbara Foxley,** Queen Mary's School, Walsall.

Cottage. Class 4.

Cost, £200 (without builder's profit), or 4.34d. per ft. cube.

Cost of duplication, say, £225.

Could be built in from two and a half to three months.

Pair of similar cottages about 2½ per cent. cheaper, but some re-arrangement of plan would be needed. Plan does not lend itself to groups of four.

Ground and first floors. Ground floor:—Living-room, with range, 13 ft. 1½ in. by 11 ft. 6 in. by 7 ft. 9 in. Parlour, 10 ft. 3 in. by 9 ft. 9 in. by 7 ft. 9 in. Scullery, 10 ft. by 6 ft. 4½ in. (average) by 7 ft. 9 in. Store, 5 ft. 6 in. by 3 ft. by 7 ft. 6 in. Cupboard under stairs, 22 sq. ft. area. W.C. and coal-shed. First floor:—Bedroom No. 1, 13 ft. 1½ in. by 11 ft. 6 in. by 7 ft. 9 in Bedroom No. 2, 13 ft. 6 in. by 10 ft. 3 in. by 7 ft. 9 in. Bedroom No. 3, 11 ft. 6 in. by 6 ft. 4½ in. by 7 ft. 9 in.

N.B.—Bedrooms Nos. 1 and 2 are each reduced by an entrance lobby about 3 ft. 6 in. square. No. 3 has no fireplace. Cupboards in living-room and Bedroom No. 1. Copper and bath in scullery.

Walls, local bricks faced with red bricks from Bourne, Lincs., to ground floor; cement, rough cast, above; external walls 9 in., internal 4½ in.

Floors, 6-in. red tiles to ground floor, except parlour; parlour and bedrooms, 1-in. boarding on joists; plaster ceilings.

Roof, plain red tiles on timber rafters.

Foundations, two courses of brick in cement twice width of wall.

Aspect of front door, north by west. (This was determined by the site allotted.)

W.C. (wash-down, fireclay, with rim lift-up seat). Rain-water collected in butts. 4-in. socket-jointed stoneware pipes, with 3½-in. culvert pipe at head of drain; manhole with intercepter and F.A.I. at end of plot facing road, and thence to sewer. Bath waste and sink discharge externally over one gully.

As the cottage is in the town area, the requirements of the artisan rather than the farm labourer have been considered. Comfort, as understood by decent working-class tenants, has been aimed at. The architect has tried to steer clear in plan elevation or detail of anything which should strike the tenant as bizarre or squalid. The workman has strong notions of the fitness of things, and resents features which persons of more cultivation might be tempted to call "quaint and cottagey." It is contended that though there is plenty of light and air, the windows are not made larger than required by the by-laws;

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A striking series of illustrated articles dealing with the whole of the Cheap Cottage question. These articles were the first of their kind published dealing with the £150 cottage as a possibility, and form a most exhaustive treatise on the subject of cottage building.

"The County Gentleman & Land and Water,"

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"the amount of window space sometimes given in these days tends to discomfort—rooms are either wind-swept, or sun-parched, or both."

The estimate is based on prices which admit of sound work throughout. Materials and methods of construction used with which all builders and their men are familiar; "beyond the suspicion with which the average builder regards unusual features, their employment involves a close and continuous supervision of the workmen employed, difficult even on large jobs, but almost impossible on works of this size."

31. Ivor Tucket. Architect, **Curtis Green,** 21, Bedford Row, W.C.

Three Cottages. Class 3.
Cost, £525, or £175 each, or 5d. per ft. cube approx.
Ground and first floors. Living-room, 14 ft. 6 in. by 12 ft. by 7 ft. 6 in., with range. Scullery, 12 ft. by 6 ft. by 7 ft. 6 in., with movable range and copper. Bedrooms, 14 ft. 6 in. by 9 ft. by 8 ft. 6 in., 9 ft. 8 in. by 6 ft. 6 in. by 8 ft. 6 in., 10 ft. by 6 ft. by 8 ft. 6 in. W.C. Larder. Fuel store. Dresser. One cupboard.
Walls, 9-in. brick, limewashed.
Floors, wood; cement in scullery and offices.
Roof, pantiles.
Foundations, lime concrete.
One door north, one east, one south.
W.C. (wash-down). Water butts. Main sewer.
Each cottage in the block is different.

32—33. G. P. Gooch, South Villa, Campden Hill Road, London, W. Architect, **Curtis Green,** 21, Bedford Row, W.C.

Pair of Cottages. Class 2.
Cost, £150, or 5d. per ft. cube.
Ground and first floors. Living-room, 14 ft. 6 in. by 12 ft. by 7 ft. 6 in., with range. Scullery, with movable range and copper, 12 ft. by 6 ft. by 7 ft. 6 in. Bedrooms, 14 ft. 6 in. by 9 ft. by 8 ft. 6 in., 9 ft. 8 in. by 6 ft. 6 in. by 8 ft. 6 in., 10 ft. by 6 ft. by 8 ft. 6 in. W.C. Larder. Fuel store. Dresser. One cupboard.
Walls, 9-in. brick, lime-whitewashed.
Floors, wood; cement in scullery and offices.
Roof, pantiles.
Foundations, lime concrete.
Aspect of front door, north-east.
W.C. (wash-down). Water butts for rain-water. Main sewer.
The feature claimed for the cottages is their simplicity.

34. Charles Gustave Agate, Architect, 14, John Dalton Street, Manchester.

Cottage. Class 1.
Cost, £140 net, or 4.2d. per ft. cube.
Could be duplicated for £140.
Could be built in about two months.
By erecting two, side by side, there would be a saving of about 15 per cent.

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Ground and first floors. Living-room, with range, 15 ft. by 13 ft. 10 in. by 7 ft. 6 in. Scullery, with copper, 10 ft. 3 in. by 10 ft. by 7 ft. 6 in. (with sink and bath). Larder, coals, w.c., and covered yard. Bedroom No. 1, with large cupboard, 15 ft. by 10 ft. 6 in. by 8 ft. 6 in. Bedroom No. 2, 10 ft. 9 in. by 6 ft. 6 in. by 8 ft. 6 in. Bedroom No. 3, 8 ft. 6 in. by 8 ft. by 8 ft. 6 in. Note.—Bedrooms Nos. 1 and 2 have fireplaces.

Brick walls, 9 in. outside and 4½ in. inside. Outside rough-casted.

Ground floor, tiles on concrete and cement on concrete; first floor, boarded.

Roof, pantiles.

Brick footings, twice width of wall, on concrete.

Aspect of front door, south.

E.C. during Exhibition; converted into w.c. afterwards. Rain-water collected in tubs. Drainage to sewer.

The cottage is self-contained, without any outbuildings and their attendant backyards, which only encourage untidiness and squalor. The little covered yard is just sufficient to separate the w.c. from the scullery, and provides thorough ventilation. It also gives shelter to an ashes box.

The living-room has windows on the south, west, and north sides It is greatly benefited by the addition of 400 cu. ft. of air space from the staircase, which is open to the room.

With regard to the æsthetic value of the exhibit, an effort has been made to group the windows and doors effectively, and the general proportion has been made as agreeable as possible. The irregularity of the shape of the living-room contributes to its charm, and gives a sense of size and spaciousness (to which the peep upstairs greatly adds). A deep picture rail runs all round the room, carrying line with the tops of doors, windows, dresser, recess, etc., and assisting to hold the various component parts of the room together.

The cottage has been placed on the site so as to get as much garden as possible on the south and west sides, at the same time with the intention of obtaining the best views.

Furnished by T. P. Steele, Snow Hill, Shelton, Stoke-on-Trent.

35. Potter & Company, Ltd., 66, Victoria Street, London, S.W.

Cottage. Classes 1 and 4.

Cost, £150, exclusive of water supply, drainage and carriage, or 4½d. per ft. cube.

Double cottages would cost 10 per cent. less each.

All on ground floor. Living-room, 14 ft. by 12 ft. Scullery, 10 ft. by 9 ft. Bedrooms, 12 ft. by 8 ft. 10 in., 10 ft. by 8 ft. 10 in., and 10 ft. by 8 ft. 6 in.

Monolithic walls, outside concrete, 7 in. thick; inside, 3 in. thick.

Floor, living-room and bedrooms, wood nailed on concrete; larder, lobby, and scullery, granitic cement.

Roof, wood, tiled except sculleries and fuel places and w.c.'s, cement and concrete flats.

Foundations, Portland cement.

Hard water from main. Undergronnd tank of concrete (for soft water). Drainage to main sewer.

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TRADE BURRELL & Co. LONDON MARK.
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SNOW WHITE ZINC PAINT,

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Genuine Improved Pale Boiled Linseed Oil,

Produces the most perfect White Paint procurable not darkening with age or action of impure air.

SANITARY WASHABLE DISTEMPER

IN PASTE OR POWDER.

The Most Perfect Sanitary Wall Covering.

For Inside or Outside use.

Damp Wall Solution.

Effectually resists damp.
Specially recommended for
Dairies, Stables, Laundries, Lavatories, &c., &c.
Dries quickly, with a hard, glassy surface.

Burrell's Durable Enamel

In every variety of
Beautiful and Permanent Colours.
Mites, Dwarf, Small, Medium, Large, and Pint Tins, and in Bulk.
ALSO BATH ENAMEL.

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Colour and Varnish Makers, Oil Boilers, &c., &c.,

BURRELL'S WHARF, MILLWALL, LONDON.

Export Offices: 117 & 118, LEADENHALL STREET, E.C.

The special features are walls of concrete and rough cast; no special apparatus used; no wood joists or hollow spaces to ground floor, formed of 5-in. hard clinker and 5-in. Portland cement concrete; avoidence of wood wherever likely to decay; all floors absolutely dry and damp-resisting and extremely durable.

35. Potter & Company, Ltd., 66, Victoria Street, London, S.W.

Pair of Semi-detached Cottages. Class 4.

Cost, £300, exclusive of water supply, drainage, and carriage, or approxmately 4½d. per ft. cube.

All on ground floor. Each cottage:—Living-room, 14 ft. by 12 ft., with range. Scullery, 10 ft. by 9 ft., with hob-grate. Bedrooms, 12 ft. by 8 ft. 10 in., 10 ft. by 8 ft. 10 in., 10 ft. by 8 ft. 6 in.

Walls, steel framing and plaster 7 in. thick.

Floors, wood on concrete, living-room and bedrooms; larder, lobby, and scullery, granitic cement.

Roof, wood, tiled except sculleries and fuel places and w.c.'s, cement and concrete flats.

Foundations, Portland cement.

Hard water from main. Underground tank (of concrete) for soft water Drainage to main sewer.

Special features are, no wood joists or hollow spaces to ground floor, which is formed of 5-in. hard clinker, 5-in. Portland cement concrete. Wood boards nailed direct to the concrete for living-room and bedrooms. Granite paving elsewhere on 5-in. cement concrete. Flat concrete roof to outbuildings. Avoidance of wood wherever possible or likely to decay. All floors absolutely dry and damp-resisting, and extremely durable. The external walls are of steel stauncheons. Rough-cast plaster outside; ordinary plaster inside. Advantages—quickness of construction, fire-proof, imperishable, great strength, proof against climatic influences.

36. Wm. Gradwell & Co., Ltd., Barrow-in-Furness. Architect. **W. Moss Settle, A.R.I.B.A.**

Cottage. Class 1.

Cost, £150.

Can be repeated for £165. Two cottages would cost about £280.

Could be erected in a month.

Two storeys. Living-room, with grate, 12 ft. 6 in. by 11 ft. by 8 ft. 3 in. Kitchen-scullery, with range, 12 ft. 6 in. by 11 ft. by 8 ft. 3 in. Larder and fuel store. Bedrooms, 12 ft. 8 in. by 11 ft. by 8 ft. 6 in., with grate; 11 ft. by 8 ft. 8 in. by 8 ft. 6 in., with grate; 8 ft. by 7 in. by 8 ft. 6 in., with grate.

Walls, solid oak posts grooved for 3-in. compressed cement concrete slabs.

Floors, boarded with the exception of kitchen, which is tiled.

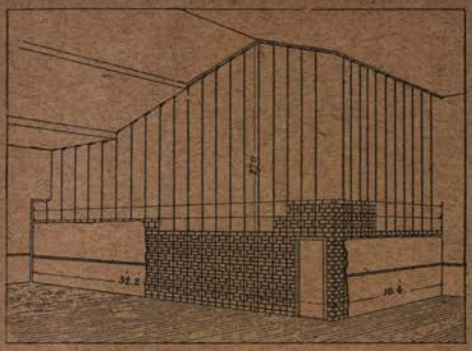
Roof, tiled.

Foundations, concrete.

Aspect of front door, south.

Wash-down w.c.

The short time needed for construction is claimed as an advantage. All parts are delivered on the site ready to erect.



Partitions erected for the War Office at the Royal Arsenal, Woolwich.

The Fire-proof Partition & Spandrel Wall Co.,

Bank Chambers, 92, Tooley Street,
London Bridge, S.E.,

Will be pleased to give Estimates for houses built with their single or double walls. Garden walls, boundary walls, temporary buildings, and fire-proof partitions.

CONTRACTS UNDERTAKEN IN ANY PART OF GREAT BRITAIN.

Our fire-proof self-supporting partitions erected complete, and plastered both sides, finished in Keen's cement ready for painting or papering, 6s. 6d. per yd. supl. in London and neighbourhood.

EXHIBIT Nos. 40 and 60.

Telephone No. 9738 Central. Telegrams—"UNBALLAST, LONDON."

THE COTTAGE BATH OF THE CENTURY.

These Baths are largely in use in Cottage Property, and when there is no fixed tap over the Bath no extra water rate should be charged. We supply plug, clips, and outlet fitting with each Bath. Our Baths are made of lead-coated steel sheets, and will not break like cheap cast iron.

This Illustration shows Bath to be most handy for Hot Water Supply from Copper, also Cold Water from Tap over sink.

Awarded Two Gold Medals & One Silver.

FURTHER PARTICULARS—

THE PATENT ADJUSTABLE BATH CO.,

31, Broad Street,
BIRMINGHAM.

37. **Fredk. Harrison, F.S.I., and W. H. Hattrell, M.S.A.,** 3, Welford Road, Leicester. Builders, **Tyers & Yates,** Leicester.

Cottage. Class 1.

Cost, £150, or 4½d. per ft.-cube.

Can be erected in from five to six weeks.

Two storeys. Living-room, with range, 13 ft. by 12 ft. 6 in. by 8 ft. Scullery, with set pot, etc., 9 ft. 9 in. by 6 ft. 10½ in. by 8 ft. Bedrooms, 12 ft. 8 in. by 11 ft. 6 in. by 8 ft., 12 ft. 8 in. by 9 ft. 9 in. by 8 ft., 9 ft. 9 in. by 8 ft. 9 in. by 8 ft. Pantry. Two store closets. One cupboard. Coal-house.

Walls, 9 in. by 4½ in. External walls rough-casted above damp-course.

Ground floor, 6-in. breeze concrete, with 1-in. boards. First floor, 7-in. by 2½-in. joists, and 1-in. boards.

Roof, tiles.

Aspect of front door, south.

W.C. (pedestal). Water butts. Town drainage.

The features claimed are simplicity, comfort, and durability.

38. **Cement Products Co.,** Moor End Park, Charlton Kings, Cheltenham.

Cottage. Class 1.

Cost, £148.

Can be duplicated at same price.

Can be erected in one week.

Two floors. Living-room, with fireplace, 10 ft. by 12 ft. by 8 ft. Kitchen, with range, 13 ft. by 15 ft. by 8 ft. Scullery, 5 ft. by 7 ft. by 8 ft. Bath-room (full equipment), 5 ft. by 5 ft. 6 in. by 8 ft. Larder, 5 ft. by 3 ft. by 9 ft. Hall, with open stair, 8 ft. by 7 ft. 6 in. by 8 ft. Bedrooms, 12 ft. by 10 ft. by 8 ft., 10 ft. by 13 ft. by 8 ft., 10 ft. by 12 ft. by 8 ft. Landing, 5 ft. by 11 ft. by 8 ft.

Walls, 10-in. and 8-in. hollow concrete blocks.

Floors, wood.

Roof, tiles.

Foundations, concrete blocks.

W.C.

The building is constructed of hollow concrete blocks, which give a perfect circulation of air and render the building warm in winter and cool in summer. These blocks are, in the process of manufacture, submitted to compression. Any design—carved, tooled, or chiselled—or any size or shape block can be made. The blocks can be made almost anywhere at 75 per cent. of the cost of brick. The air space can be utilised for heating or ventilating purposes, and affords accommodation for gas pipes, water pipes, electric wires, etc. The house has a verandah extending across the front, 6 ft. wide by 22 ft. long, in the Canadian style, and "the house is in the Canadian style entirely." Exhibitor issues a descriptive booklet.

40. **The Fire-proof Partition & Spandrel Wall Co.,** Bank Chambers, 92, Tooley Street, London Bridge, S.E.

Cottage. Class 4.

Cost, £256, inclusive of drainage and fencing, or 5¼d. per ft. cube.

Could be duplicated for same price in about three months.

Two floors. Parlour, with grate, 14 ft. by 14 ft. by 9 ft. Kitchen, with range, 13 ft. by 8 ft. 6 in. by 9 ft. Scullery, with copper and bath,

PILCHERS' "STOPROT."

AN ABSOLUTE PREVENTIVE OF DECA. AND DRY ROT IN WOOD.

PILCHERS' STOPROT, an absolute preventive of decay and dry rot in wood, has been introduced with a view of meeting the widespread want of a thoroughly reliable preservative of wood at a moderate cost.

Pilchers' Stoprot, being proof against insects, is invaluable in tropical countries; it can be applied either hot or cold, but as it soaks deeper into the wood and dries quicker when hot, it is advisable to use it this way when possible. A gallon of Pilchers' Stoprot when tried recently by one of our customers was found to cover 400 feet super of new boarding.

When ordering or specifying Stoprot, please do so as PILCHERS' STOPROT, as otherwise some other make may be substituted which will not give satisfaction. All packages of the original Pilchers' Stoprot bear our label.

Wood treated with this preparation, if desired, can be painted, but does not need to be, as Pilchers' Stoprot gives a rich brown colour, equal in appearance to dark Oak Stain, and effectually preserves it

PILCHERS' "STOPROT"

Has been supplied for use at WINDSOR CASTLE, the Admiralty, and on the Estates of

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The Earl of Drogheda.
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Earl Stanhope.
The Trustees of the late Earl of Stamford and Warrington.
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Lord Yarborough.
Lord Chesham.
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Lady Williams Wynn.
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Sir Edmund Verney.
Sir W. W. Wills, Bart.
Sir G. J. Armytage, Bart.
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Col. Houblon.
Col. White.
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W. Palmer, Esq.
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F. S. Shenstone, Esq.
J. B. West, Esq.
S. Whitbread, Esq.
The Bournville Village Trust.
Cadbury Bros.
Rowntree & Co.
Cromartie Estate.
Pasque Estates
Camerton Estate.
Southill Estate.

Cottage treated with Pilchers' Stoprot at Royal Agricultural Society's Show, Park Royal, 1905, and on Cottages in New Garden City, Letchworth.

Price 1/6 per gall. in 40-gall. barrels included; or 1/9 per gall. in 10-gall. drums which are charged for.

5-galls. (drum included), 12/-.
3-galls. " " 7/-.
2-galls. (drum included), 4/9.
1-gall. " " 2/9.

FREE TO RAIL IN LONDON. DIRECTIONS ON EACH PACKAGE.

Testimonials and Sample of Treated Wood on application.

Pilchers' Stoprot Brushes, most suitable and economical. Large, 1s. 6d. each; Small, 1s. each. Fitted with 4-foot handles, 3d extra.

AGENTS IN EVERY TOWN.

MORGAN'S LANE, TOOLEY ST., LONDON, S.E.

8 ft. by 6 ft. by 9 ft. Hall. W.C. Larder and cupboard to kitchen; two cupboards to parlour. First floor: Three bedrooms, 15 ft. by 11 ft. by 9 ft., with two cupboards; 14 ft. 6 in. by 8 ft. 6 in. by 9 ft., with one cupboard; 6 ft. 6 in. by 6 ft. 9 in. by 9 ft. Accommodation for two more bedrooms above, and store.

Two brick-on-edge Patent Spandrel walls in cement rough cast.

Timber flooring.

Tiled roof.

Six-inch concrete all over area foundations; extra concrete under-stanchions.

Aspect of front door, south-west.

Wash-down pedestal closet. Rain-water butts. Four-inch main drain, and trapped inspection chamber.

The feature of this house is the Company's Patent Spandrel hollow wall system. "These walls are composed of brickwork reinforced with iron, and built in cement mortar. The load of floors and roof are carried on R.I. stanchions placed within the hollow space formed by the two walls. As the walls are self-supporting between these stanchions, no foundation is required except that for these stanchions. The walls are perfectly crack-proof on account of the iron netting within same. The system is, therefore, specially suitable and economical where a good foundation cannot be found at a high level. The double walls are particularly convenient for forming cupboards. This system, which is now largely adopted all over the world for house building, combines great efficiency with cheapness."

41—42. Bournville Village Trust. John H. Barlow, Secretary, Estate Office, Bournville.

Pair of Cottages Class 4.

Cost, £369 1s.; with bath, £387 19s. Contents, 18,300 cube feet at 4⅞d., say £31 per room. Gas fittings as supplied to Bournville Estate Cottages, including stove, extra £6 10s.

Can be built elsewhere at same price. Building four cottages at a time would mean a saving of 5 per cent.

To build the pair would take four months.

Ground and first floors. Living-room, with oven grate, 14 ft. by 11 ft. 6 in. by 8 ft. 3 in. Parlour, with grate, 9 ft. by 10 ft. 6 in. by 8 ft. 3 in. Bedrooms, 14 ft. by 11 ft. 6 in. by 8 ft., 10 ft. 6 in. by 9 ft. by 8 ft., 8 ft. 4 in. by 6 ft. 7 in. by 8 ft. Larder. Scullery, 7 ft. by 9 ft. by 7 ft. Tools, 6 ft. 7½ in. by 4 ft. by 7 ft. Coals. Linen closet. Hot and cold water on sink. Bath-room, 7 ft. 4½ in. by 4 ft. 7½ in. by 8 ft.

Walls, red brick, 9 in. outside, 4½ in. inside.

Floors, 1-in. tongued and grooved boards, and 9-in. quarries.

Roof, Broseley tiles. 12 in. by 6 in. blue tone slates specified, but forbidden by Garden City.

Footings of brickwork, 18 in. wide, on solid bottom soil.

Aspect of front door, south.

W.C. (Granitas pedestal). Galvanised-iron rain-water tanks. Drainage, 4-in. stoneware socketted pipes, jointed in cement, connected to sewer.

For special features, see Bournville Trust's single cottages.

43. The Letchworth Building Syndicate. V. Dunkerley, Architect, 8, Frederick's Place, Old Jewry, London, E.C.

Semi-detached Cottages. Classes 2 and 4.

Cost, excluding builder's profit, model cottages, and bath, £128; ex-

ELLKAY & CORNES, LTD.,

Baths for Mansion or Cottage.

SPECIALITIES FOR HOUSING.

Front View—Kitchen Range.

NO FROZEN PIPES.
NO RISK OF EXPLOSION.
WASHING MADE EASY.

Back View—Wash Copper (Closed) and Bath.

THE . . .

'Model Cottager'.

COMBINED

RANGE, COPPER & BATH.

Over 1,000 Model Dwellings fitted in London and Provincial Cities and Towns.

Front View—Range and Linen Cupboard.

THE COMBINATION RANGE, COPPER, AND BATH SPECIALITIES may be seen in use in nearly one half of the Cottages entered for Competition in the Cheap Cottages Exhibition.

THE "ELLCO"

COMBINED

RANGE, COPPER,

FOLDING BATH,

AND

LINEN CUPBOARD.

Back View—Wash Copper and Folding Bath.

ECONOMY OF SPACE!
ECONOMY OF COAL!
ECONOMY OF LABOUR!

Full particulars, plans, working drawings, and specification on application.

Ellkay & Cornes, Ltd.

BATH HOUSE,

59, HOLBORN VIADUCT

LONDON, E.C.

Telegrams—Bathroom, London.
Telephone—No. 11,921 Central.

cluding builder's profit but including model cottager and bath, £138; including builder's profit and model cottager and bath, £150.

Twenty-two similar cottages now being erected in Station Road East, Letchworth.

Could be erected in five weeks.

Two floors. Living-room, with model cottager, 16 ft. by 11 ft. 2 in. by 8 ft. 6 in. and bay. Kitchen-scullery, with stove, 13 ft. 3 in. by 10 ft. 10 in. by 8 ft. 6 in., and sink recess. Bedrooms, 13 ft. by 10 ft. 2 in. by 9 ft., 9 ft. 6 in. by 10 ft. 2 in. by 9 ft., 13 ft. by 6 ft. 5 in. by 9 ft., and landing for clothes chest, etc. Larder, w.c., coals, bath, etc.

Walls, 9-in. asbestic brick.

Floors, wood block and red quarries.

Roof, Mansard, tiled.

Foundations, concrete.

Aspect of front door, south.

W.C. Water from mains and butts.

Designed "to provide two good living-rooms having special features to meet both summer and winter comforts and requirements, which will induce the tenant to use both apartments regularly."

The "model cottager" is a combined range, copper, and bath (either stationary or folding). It is fixed in the dividing wall between the two rooms. The front part in the living-room has an oven on one side and a copper, which is accessible from the kitchen-scullery on the other, the grate being in the centre. The copper for laundry purposes is fed automatically by a low-pressure feed-water cistern. There is no fear of explosion. Pipes connect the copper with the bath adjoining. The water in the copper is kept hot by the range fire, and a hot bath can be taken even in the coldest weather, the room being warmed by the heat radiated from the apparatus. A secondary grate is provided under the copper so that the water can be heated in the summer or when the range is not in use. Thus the fuel which heats and cooks in one room also provides hot water for boiling clothes and bathing purposes in the other.

A feature in the cottage on the east side is the sink recess, which forms part of the kitchen-scullery when the doors are open. When the latter are closed there is no unsightly sink, pots, pans, etc., to look upon, these all being shut from view in this well lighted and ventilated sink recess.

It would be impossible to erect houses having this accommodation other than with a Mansard roof.

44. The Asbestic Brick and Tile Co., Ltd., Lodge Place, Grove Road, St. John's Wood, London, N.W.

Semi-detached Cottages. Class 4.

Cost, £400, including builder's profit, etc., or 4½d. per ft. cube. Cost, including builder's profit, etc., £168, or £28 per room.

Temporary fencing (until privets mature), 7s. per yard. If the model cottager and bath are deducted and replaced by ordinary kitchener, deduct £24 the pair, making the cost £376 the pair.

Can be erected in two months.

Two floors. Living-room, with Corne's patent combination range of oven, fire, and copper, 12 ft. 10 in. by 11 ft. 8 in. by 8 ft. 6 in. Parlour, with register grate, 13 ft. 6 in. by 11 ft. by 8 ft. 6 in. Scullery, with gas stove or self-setting range, copper heated by kitchen fire, and bath with hot and cold water supply, 11 ft. by 7 ft. 9 in. by 8 ft 6 in. Larder, coals, etc. Bedrooms, 12 ft. 10 in. by 11 ft. 8½ in. by 8 ft. 9 in., 11 ft. by

CARTER & CO.,

Telegrams:
"TILES, POOLE."

Poole, DORSET.

Manufacturers of

Floor, Wall, and Hearth Tiles, Keramic Mosaic, Terra-Cotta and Constructional Faience.

London Office: 43, ESSEX STREET, STRAND, W.C.

Manchester Office: 100, DEANSGATE.

DESIGNS FREE ON APPLICATION.

Foundations.

Before you can build either a Country House, or a cheap Labourer's Cottage, you must have a good foundation.

This you can have upon almost any site by using

Patent Chain Ferro Concrete,

The ironwork for which costs from 2s. per super yard.

A floor laid upon our system, 64 ft. by 20 ft. and 6 in. thickness, has horses and carts with full loads passing over it daily (at Wath-on-Dearne).

Used also for Fire-proof Floors and Roofs.

FOR FURTHER PARTICULARS APPLY TO

THE CHAIN CONCRETE SYNDICATE,

CASTLEFORD, YORKSHIRE.

9 ft. 4 in. by 8 ft. 9 in., 9 ft. by 8 ft. 1 in. by 8 ft. 9 in. W.C. Box-room.

Walls, asbestic brick for external walls, 9 in. thick; all internal partitions, excepting fireplaces, of Mack patent partition slabs.

Ground floor, 1¼-in. wood block flooring laid in bitume or concrete; first floor, 1½-in. tongued and grooved boards.

Roof, tiles.

Foundations, concrete.

Aspect of front door, north-east. The position of the site makes this aspect desirable. The living-room faces south-east.

W.C. on first floor. Rain-water collected in butts; hard water from mains.

The living-room contains a combined range of oven, fire, and copper, as in Cottage 43.

The w.c. is placed on the first floor, this being considered desirable in a house of this description.

The elevations have been designed to show the adaptability and suitability of the asbestic brick. This brick is a machine-made brick, and is composed of lime, sand, and asbestic, "the finished product being a perfectly modelled brick, having true arrises and being of even colour." It is made in all colours—white, biscuit, light and dark grey, light and dark red, etc., etc. This brick has favourably withstood tests to which it has been put by Messrs. Kirkcaldy.

The architect is Mr. V. Dunkerley, of 8, Frederick's Place, Old Jewry, London, E.C.

45. T. V. Martindale, "Glencoe," Bridlington.

Cottage. Class 1.

Cost, £150, or nearly 3½d. per ft. cube.

Could be duplicated for £150, exclusive of profit.

The erection of two together would save 5 per cent.; of four, 7½ per cent.

Time to erect the cottage, three months.

Two floors. Living-room, with range, 15 ft. by 12 ft. by 8½ ft. Parlour, with hob-grate, 11½ ft. by 11 ft. Wash-house, 4½ ft. by 7½ ft. by 8½ ft., with bath, copper, and sink. Bedrooms, 11 ft. by 17 ft. by 8½ ft., 12 ft. by 11½ ft. by 8½ ft., 8½ ft. by 8 ft. by 8½ ft. Three cupboards. Coal house and w.c.

Walls, 4½-in. and 9-in. brickwork.

Floors, wood and tiles.

Roof, tiles.

Foundations, concrete and brickwork.

Aspect of front door, north-north-west.

W.C. Rain-water butts. Drainage into sewer.

Built from designs and specifications by Alfred T. Martindale, architect, 66, Wellington Road, Bridlington.

The chief considerations taken into account have been "economy of plan and design, and the cost of future up-keep, a strict eye to the engaging only of quick and efficient workmen, and judicious purchase of all material, etc."

The floors of entrance, pantry, and wash-house are laid with cement tiles, coloured to form a pattern. They can be had bright or dull, and are inexpensive. They are manufactured by the builder, T. V. Martindale, who is also the maker of the artificial stone used for the window heads, sills, steps, etc. These can be made on the building site.

EXPANDED STEEL

FOR ARMOURED CONCRETE, AND FIRE-PROOF . . PLASTER WORK.

Foundations, Walls, Floors, Roofs, Reservoirs, Sewage Tanks, Conduits, Bridges, Grain Silos,
&c.

IT SAVES 75% IN BULK OF CONCRETE.

Steel-framed Buildings a Speciality.

THE NEW EXPANDED METAL CO., LTD.

York Mansion, York St., Westminster, S.W.

Telephones—419 Westminster, 1514 Victoria. Telegrams—"Distend, London."

45. T. V. Martindale, "Glencoe," Bridlington.

Pair of Semi-detached Cottages. Class 2.
Cost, £300, or nearly 3½d. per ft. cube.
Can be duplicated elsewhere at the same price, plus profit
The erection of four together would save 5 per cent.
Further particulars as per Mr. Martindale's single cottage, Class 1.

47. New Expanded Metal Co., Ltd., York Mansions, York Street, Westminster, London, S.W.

One Detached, and two Semi-detached Cottages. Classes 1 and 2
Cost, approximately, £150 each, or 5¼d. per ft. cube.
Could be erected in about six weeks the three.

Ground and upper floors. Single Cottage:—Living-room, with range or kitchener, 14 ft. 6 in. by 9 ft. 9 in. by 7 ft. 9 in. Parlour, with mantel grate, 11 ft. by 10 ft. 3 in. by 7 ft. 9 in. Scullery in kitchen, with movable copper. Bedrooms, 14 ft. 6 in. by 9 ft. 9 in. by 8 ft., 10 ft. 3 in. by 8 ft. by 8 ft., 9 ft. 3 in. by 6 ft. 9 in. by 8 ft. Shed for coals, wood, etc. Pantry. Two cupboards.

Semi-detached Cottage:—Living-room, 15 ft. 6 in. by 14 ft. by 8 ft., with range. Scullery, 9 ft. by 8 ft. by 8 ft., with movable copper. Bedrooms, 12 ft. by 11 ft. 3 in. by 8 ft., 12 ft. 6 in. by 7 ft. 9 in. by 8 ft., 9 ft. by 6 ft. 6 in. by 8 ft. Pantry. Three cupboards. Shed for coal and wood, etc.

Walls, external, timber framing, expanded-metal lathing, and Portland cement, plaster in two stains giving 4-in. hollow space. Internal walls, expanded-metal lathing and plaster 2 in. thick.

Floors, timber joists and flooring boards, with expanded-metal lathing and plaster ceilings.

Roof, asbelate slating on timber framing.

Foundations, concrete.

Aspect of front door, single cottage, living-room and chief bedroom, south; semi-detached, south.

W.C. Butts.

The features of these cottages are the ease with which the materials can be obtained, transported, and erected, lightness and durability of the structure, and the even temperature and dryness on account of hollow external walls.

48A. J. A. King & Co., 181, Queen Victoria Street, London, E.C.

Bungalow. Classes 1 and 4.

Cost, £130, or 3¼d. per ft. cube, or £26 per room; £118, excluding builder's profit, or £23 14s. per room.

Could be erected in four weeks.

Ground floor only. Living-room, with range, 16 ft. by 12 ft. 6 in. by 9 ft. Scullery, with copper and stove, 7 ft. 6 in. by 7 ft. by 9 ft. Larder W.C. Coals. Three bedrooms, 12 ft. by 9 ft. 4 in. by 10 ft., 11 ft. by 9 ft, 4 in. by 10 ft., and 11 ft. by 8 ft. by 9 ft.

Walls, Mack partition slabs 4 in. thick, the exterior being covered with rough cast.

Floors, wood block laid in bitume on 6-in. bed of Portland cement concrete.

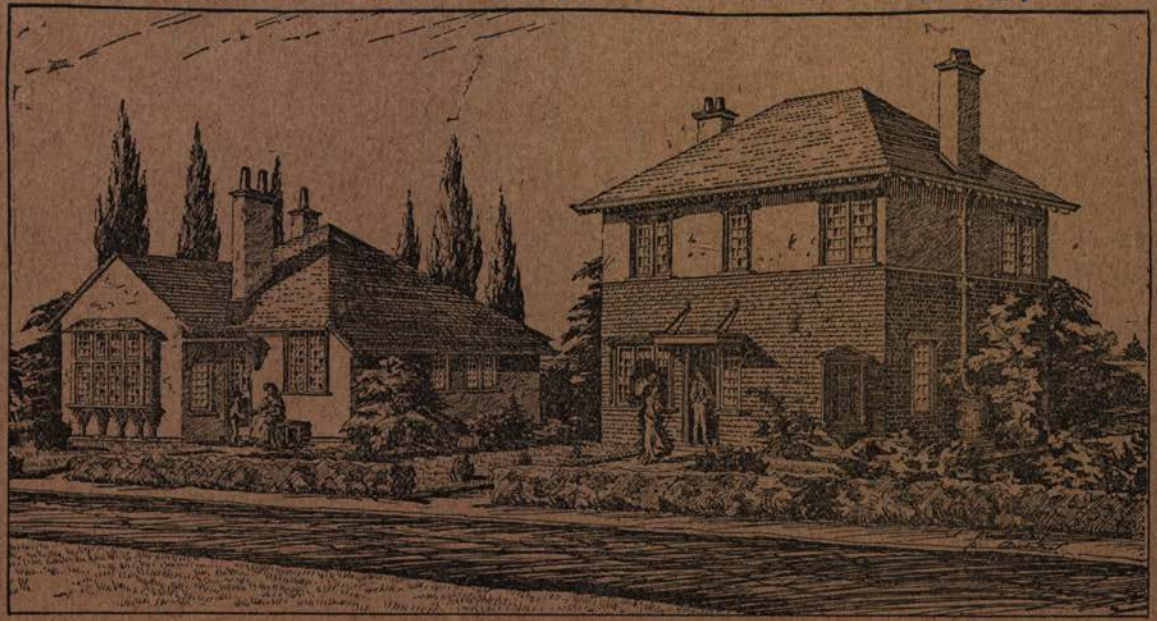
Roof, timber, covered with machine-made tiles.

Foundations, concrete

Aspect of front door, south-south-east.

FIRE, SOUND, "MACK" VERMIN PROOF.

BUNGALOWS AND COTTAGES.



AS ERECTED IN FIRST GARDEN CITY BY

Telephone:
773 Central.

J. A. KING & CO.

181, Queen Victoria
Street, London, E.C.

W.C., or e.c. in future. Water from Company. Rain-water in butts.

The rooms do not communicate with one another excepting in the case of kitchen and scullery.

All the rooms lead from a small hall lighted from the roof, the doors of the three bedrooms being so arranged that a curtain can divide these rooms from the remainder of the house. When the bedroom doors are open a perfect system of through ventilation is secured. A folding bath is provided in the third bedroom. This bath is supplied with hot water from a portable fire copper which is used for laundry purposes.

The whole of the materials used in the erection of this bungalow are Mack partition slabs and Mack ceiling slabs, the only brickwork erected being in the construction of the fireplaces. No framing or quartering is necessary.

The architect is Mr. V. Dunkerley, of 8, Frederick's Place, Old Jewry, London, E.C.

48B. J. A. King & Co., 181, Queen Victoria Street, London, E.C.

Cottage. Classes 1 and 4.

Cost, £150, or £25 per room; or, including builder's profit, £165, or £27 10s. per room. Say 3½d. per ft. cube.

Could be erected in five weeks.

Two floors. Living-room, with range, 15 ft. 10 in. by 14 ft. 2 in. by 8 ft. 9 in. Parlour, with register grate, 11 ft. 9 in. by 11 ft. by 8 ft. 9 in. Scullery, with self-setting range, copper, and folding bath having hot and cold water, 11 ft. 9 in. by 7 ft. 6 in. by 8 ft. 9 in. Bedrooms, 13 ft. 4 in. by 12 ft. 6 in. by 8 ft. 6 in., 13 ft. 5 in. by 9 ft. by 8 ft. 6 in., 10 ft. 6 in. by 9 ft. 7 in. by 8 ft. 6 in. Larder. Coals. W.C. Scullery dresser, store cupboards, etc.

Walls, Mack partition slabs 4 in. thick, covered with rough cast.

Floors, wood blocks laid in bitume on concrete; hall, scullery, and conveniences laid with red quarries.

Roof, timber, covered with machine-faced tiles.

Foundations, concrete.

Aspect of front door, south-south-east.

W.C., position suitable for e.c. Water Company supplies water. Rain-water is collected in butts.

With the exception of the fireplaces, which are of brick, the whole of the walls are of Mack partition slabs, the outer walls being 6 in. thick, the inner partition 2¾ in. and 2 in. respectively. The outer walls, to the height of the first floor window sills, are of "Mackolith," this being a material composed of Mack slabs faced with tiles to represent brickwork. The tiles are keyed to the slabs in the process of making, and it is impossible to loosen or detach them.

The architect is Mr. V. Dunkerley, of 8, Frederick's Place, Old Jewry, London, E.C.

50. Baker & May, Architects, 21, Liverpool Street, London, E.C.

Cottage. Class 1.

Cost, £149 12s., or 4½d. per ft. cube.

Could be built for price given, under similar conditions.

Could be erected in two months.

Ground and first floors. Living-room, with range, 12 ft. by 12 ft. by 8 ft. Scullery, with copper, 9 ft. by 5½ ft. by 8 ft. Bedrooms, 14 ft. by 12 ft. by 8 ft., 12 ft. by 7½ ft. by 8 ft., 12 ft. by 7½ ft. by 8 ft. Pantry. Three cupboards. Shed for coal and wood, etc.

Walls, concrete base, 7 in. thick; above this, walls are of timber framing, 6 in. thick, plastered both sides and pugged.

Deal floorboards.

Roof, French tiles.

Foundations, concrete.

Aspect of front door, south-east.

W.C. Company's water. Drainage to sewer.

51—52. H. Cayley, A.R.I.B.A., Bank Chambers, Rothwell, Kettering.

A Pair of Five-roomed Cottages. Class 4.

Cost, £330 (without builder's profit and paths), or about 4d. per ft. cube.

Can be duplicated for £380 paid at completion, subject to fluctuations of prices of materials and labour, and to a suitable builder being found. There would be a saving of about 5 per cent. for a group of four instead of a pair. Pair could be erected in two months.

Ground and first floors. In each cottage of pair—Living kitchen, 14 ft. by 13 ft. by 8 ft., with combined heating and cooking range (large semi-octagonal bay extra). Scullery, 10 ft. 6 in. by 8 ft. by 8 ft., with copper. Three bedrooms, partly in roof (18 ft. by 8 ft. by 8 ft. 6 in., 13 ft. by 7 ft. 6 in. by 8 ft. 6 in., 10 ft. by 9 ft. 6 in. by 8 ft. 6 in., each with fireplace). Pantry. Coal place.

Walls, 9 in. brick, rough cast to upper part.

Boarded floors in living-kitchens and bedrooms; quarry tiles in lobbies, sculleries, pantries, and w.c.'s; bricks in coal place.

Roof, hand-made sand-faced Bedfordshire red roofing tiles.

Foundations, concrete on clay passing down into chalk.

Front door, south.

A simple pedestal closet. Butt to take rain-water. Water laid on from mains. Drainage to sewer.

It is chiefly desired to call attention to the compact planning. Attention has been given to points that could enhance effect without materially increasing the cost.

53 The British Uralite Co., Ltd., 50, Cannon Street, London, E.C. Architects, **Wheeler & Son,** Horsham.

Cottage. Class 1.

Cost, £150, or 4d. per ft. cube.

Corne's combined stove, bath, and copper means extra cost over Larbert range, £14 12s. 6d. W.C. and drain to main sewer, extra cost over e.c and cesspool for sink, £10. Fencing, 5s. per yard. Gate, £1 10s.

Can be duplicated for £150.

Could be erected in six weeks.

All on ground floor. Kitchen, 12 ft. 6 in. by 11 ft. 6 in. by 8 ft. 2 in.; or if passage thrown in this, 11 ft. 6 in. by 16 ft. 6 in. Scullery, 8 ft. by 7 ft. by 7 ft. 10 in. high. Bedrooms, 9 ft. 9 in. by 9 ft. 3 in. by 7 ft. 10 in. high, 10 ft. by 10 ft. 9 in. by 7 ft. 10 in. high, 8 ft. 6 in. by 7 ft. 6 in. by 7 ft 10 in. (average). Larder. Coal-house. W.C.

Walls, 4½ in. one-foot above ground, *i.e.*, to underside of floorboards, faced with 1-in. cement rough cast; 9-in. footings. Damp-course of double-course slates in cement, 4-in. by 4-in. angle posts, 4-in. by 3-in.

studding covered with uralite Kent board both sides, painted and sanded externally, and whitened internally. Close copper-nailed.

Floors, joists, 6 in. by 2 in. twelve inches apart; 4-in. by 3-in. plates on sleeper walls; 1-in. white flooring.

Roof, 4-in. by 2-in. rafters; ceiling joists, 5 in. by 2 in.; purlins, 6 in. by 3 in.; struts, 4 in. by 3 in.; ridge, 7 in. by 1½ in. Roof rough boarded, covered with 12-in. by 8-in. red uralite Kent board tiles.

Foundations, 6-in. concrete over area; 9-in. footings to walls; No. 6 bolts, ¾ in., for holding down framing.

Aspect of front door, south.

Wash-down pedestal w.c. Rain-water discharges into butts with overflow to ditch. Main water.

Four-inch glazed socketted pipes jointed in cement to proper falls, and connected to sewer in road. Two manholes.

The advantages of this cottage are stated as follows:—Cheap; permanent; fire-proof; vermin-proof; cool in summer, warm in winter; ease and rapidity of erection; materials small in bulk and easy of cartage, consequently cost of carriage is small; fit for occupation immediately on completion; when complete, has all the appearance of a permanent structure (all the fireplaces and chimney-stacks are in brick, rough-casted externally).

54. Stanley Barrett & Driver, Architects, 23, York Place, Baker Street, London, W.

Pair of Cottages. Class 2.

Cost, £300 the pair, or £150 each, or 4¼d. per ft. cube.

No extras.

A similar cottage, under similar conditions, could be put up in any district at the same cost. 5 per cent. on cost might be saved by erecting four.

Ground and first floors. Kitchen (living-room), 12 ft. by 12 ft. 9 in. Parlour, 10 ft. by 8 ft. Scullery, with copper and sink, 10 ft. by 7 ft. Bedrooms, 16 ft. 6 in. by 10 ft., 10 ft. 3 in. by 6 ft. 9 in., 7 ft. 9 in. by 7 ft. 9 in. Coal-house, larder, fuel-house, and w.c.

Walls, brick, covered outside with cement and rough cast.

Floors, special solid construction, similar to wood block.

Roof, patent tiles.

Foundation, concrete.

The front faces south-west.

W.C. Water from main. Rain-water in butts. Connected to main sewer.

The special features of these cottages are the same as in Messrs. Barrett & Driver's £150 cottage. The plan has been thought out so as to give the real accommodation required by the labourer and his family. Instead of giving an open porch as in the £150 detached cottage, the architects have given as an alternative a closed-in porch. The advantages are that this makes the sitting-room less draughty. The labourer can also sit under cover on a rainy day with the front door open.

A fold-up bath, fitted with hot and cold water, could be put in any of the bedrooms at a small extra cost or in the scullery, but the architects "have an objection to this latter method, as the baths are seldom used when placed in the scullery."

THE demand for Country Cottages by people of moderate means has never been greater than it is to-day. The Cottage shown in these illustrations shall not be regarded exclusively as a working man's dwelling. On the ground floor there is the parlour, or living-room, a kitchen, scullery and larder, with coals, and w.c. outside. A staircase leads from the small front entrance hall to the three bedrooms above. The design is on simple rectangular lines, and is in every way most suitable to the concrete material employed in the building.

The structure itself is unique, in that whereas it has the face of chiselled and ashlar stone, every block was made on the very site itself on this small portable hand-power "Pioneer" Machine, from aggregate on the spot, within two weeks of staking off the plot.

The Building is composed of straight, corner, joist, half and quarter blocks, turned out just as desired, no change on the machine requiring more than ten minutes, and as the minimum output is 150 blocks (each 32 in. by 10 in. by 9 in.) per day, it can be easily understood how rapidly the materials for walls can be produced; besides which vexatious delays from manufacturers are obviated.

The Machine itself is extremely simple, and is so portable that it can be moved from one site to another on a wheelbarrow.

The objection heretofore to concrete buildings has been that the appearance was much against them, and in order to obviate this rough casting or pebble dashing over the surface had to be resorted to.

Owing to the method of working the concrete in the machine, the outer face comes from the machine beautifully finished, while the inner face is ready for plastering without furring or lathing; thus economy is reached both within and without.

The material—Concrete—is accepted by all authorities as being more fire-proof and durable, and furthermore, its good qualities improve with age, which cannot be said of many qualities of bricks and stone.

The Machine would be a most useful addition to every large Estate, as well as in every Builder's Yard, and in fact the manufacture and sale of the Blocks would prove most remunerative.

THE CONCRETE MACHINERY CO., Ltd., 18, Water Street, Liverpool, who own the **"Pioneer" Machine,** are bringing out also a Head, Cill, and Step Machine, built on similiar lines, which can be arranged also to turn out interior walls, together with a portable hand-power Concrete Batch Mixer; thus comprising a full outfit for the erection of the walls of any building.

Antique and Modern Furniture.

THE CHELSEA FURNITURE COMPANY,

41 SYMONS STREET, SLOANE SQUARE.

Hours (including Saturdays) 10 to 7.

PICTURES

of COTTAGE SUBJECTS

and RURAL SCENES,

By

Charles James Fox.

On View at the Garden City during the Cottage Exhibition.

55. Robert J. Wright, 5 Burslow, Hitchin.

Cottage. Class 1.

Cost, £148 nett, as per conditions of Exhibition, or 4¾d. per ft. cube. Extras, £7.

Can be duplicated for £180, including drains, fence, etc., complete.

Could be erected in ten weeks.

10 per cent. would be saved by erecting two; 20 per cent. by erecting four.

Three bedrooms first floor; two rooms ground floor. Living-room, with range, 13 ft. by 12 ft. by 8 ft. 3 in. Scullery, with range and copper and fixed iron bath, 9 ft. by 10 ft. by 8 ft. 9 in. Bedrooms, 13 ft. by 11 ft. by 7 ft. 6 in., 12 ft. by 7 ft. 3 in. by 7 ft. 6 in., 9 ft. by 7 ft. 3 in. by 7 ft. 6 in.

Outer walls, 9-in. brick; 4½-in. partition walls in cement.

Floors, wood.

Roof, tiles.

Foundations, cement concrete.

Aspect of front door, south.

W.C. Rain-water runs into a 60-gallon cistern. Drainage to sewer.

Designer claims the merits of compactness and convenience of "offices" and economy of space.

56—57. Wm. Judges, Boughton, Faversham, Kent.

Pair of Cottages. Class 2.

Cost, £300, exclusive of carriage of materials to site.

Could be repeated at £300 per pair under similar local conditions. A single cottage on same plan would be £160.

Pair could be built in about three months.

Two rooms, larder, and w.c. on ground floor. Three bedrooms on first floor—one principal and two smaller.

The walls are built hollow, 11 in. thick up to the first storey, 9 in. solid upper storey, faced with rough-cast plaster.

Bedrooms and parlour boarded, and kitchen and scullery, etc., cement concrete.

Roof, covered with plain tiles.

Concrete under the brick footings.

Aspect of front door, south.

W.C. Company's water laid into cottage over the sink. Drainage. Stoneware pipes, socketted, leading to the main sewer in road.

Each room can be entered separately without passing through another room. There is also good provision for cupboards and closets.

58. Concrete Machinery Co., Ltd., 18, Water Street, Liverpool. Architect, **G. Fraser.**

Cottage. Class 1.

Cost, £150.

One-eighth and one-fourth per cent. of total cost of one would be also saved respectively by erecting two and four at a time.

Cottage could be erected in six weeks.

Ground and first floors. Parlour, 14 ft. 6 in. by 12 ft. Kitchen, 14 ft. 6 in. by 12 ft. Scullery, 8 ft. by 8 ft. Larder, 8 ft. by 3 ft. 6 in. Staircase and entrance hall, 11 ft. 6 in. by 6 ft. Landing and staircase, 11 ft. 6 in. by 6 ft. 1st bedroom, 14 ft. 6 in. by 12 ft. 2nd bedroom, 14 ft. 6 in. by 12 ft. 3rd bedroom, 11 ft. 6 in. by 8 ft.

Floors, wood on solid floor, and wood boards on wood joists.

Roof, "Rosemary" tiles.
Foundations, concrete.
Front door, south-west.
Wash-down closet. Rain-water butts. Socket-jointed drain pipes with all vents and intercepters and manhole.

The walls are built from blocks made on the site of the building by means of the Company's portable "Pioneer" hand-power machine, having a minimum capacity of 150 blocks (each 32 in. by 9 in. by 10 in.) per day. The aggregate for the concrete is obtainable almost everywhere, thus making any site available.

Furniture and fittings and decorations by Messrs. William Wallace & Company, 151, Curtain Road, London and Ellkay Patent Bath Syndicate, Limited, 59, Holborn Viaduct, London, E.C., etc. The "Rosemary" roofing tiles by the G. W. Lewis Tileries, Ltd., Nuneaton; sanitary ware by Messrs. G. & D. Musgrave, Ltd., 81, Dale Street, Liverpool; food locker by Messrs. Dod & Atley, D16, Exchange Buildings, Liverpool; washable distemper by Messrs. Sissons, Ltd., Hull; Pilchers' Stoprot by Messrs. Pilchers', Ltd., Tooley Street, London, S.E.; gas fittings by T. Brooker, Hitchin; parlour wall treated with "Fabrikona" Burlay's wall covering.

59. **George E. Clare, M.S.A.,** 1, West Street, Finsbury Circus, London, E.C., and Westcliff-on-Sea. Builder, **Charles R. Price.**

Cottage. Class 1.
Cost, £150, or 4d. per ft. cube.
Could be duplicated for £150, or £145 each for two, or £140 each for four erected at one time.
Cottage could be built in from six weeks to two months.
All on ground floor. Living-room, with range, 15 ft. by 12 ft. by 9 ft. Scullery, with copper and bath, 8 ft. by 8 ft. by 9 ft. Bedrooms, 11 ft. 6 in. by 10 ft. by 9 ft., 9 ft. 9 in. by 9 ft. 9 in. by 9 ft., 9 ft. by 7 ft. by 9 ft. Pantry, dresser, sink, plate rack, covered yard, coal house, and w.c.

Breeze concrete walls 7 in. thick, filled in between special system of lattice skeleton framing.
Floors, concrete, and boards nailed on to same and bedded in mastic.
Roof, timber and Major's double Roman tiles.
Foundations, cement concrete.
Wash-down w.c. Rain-water collected in butts. Drainage to sewer in road.

The Nook Cottage is "intended for labourers in rural districts where land is not expensive, or for game-keepers, gardeners, etc., on country estates where it is desirable that buildings should be unobtrusive in character." Stress is laid on "all rooms being arranged on one floor, thus simplifying the construction and avoiding costly scaffolding, and reducing the construction to the utmost simplicity." It is recommended as "a sound and durable cottage, and practically fire-proof, at about the same cost as a timber-built cottage." Other points to which attention is drawn by the architect are:—"Floors and partitions absolutely solid, and no unseen spaces below the ceiling where vermin can harbour; avoidance of mouldings that collect dust; economy; recessed ingle-nook for sitting round the fire, leaving the major portion of the room clear for a table and other furniture, the box under the seat being used for storing; and fresh air inlet

to living and bed room carried up in chimney breast and admitting fresh cool air in the summer and fresh warm air in the winter." Partitions and ceilings in Mack fire-proof slabs. Joinery inside and out stained with "Solignum" brown and green stains.

60. The Fire-proof Partition & Spandrel Wall Co.

Bank Chambers, 92, Tooley Street, London Bridge, S.E.

Cottage. Class 1.

Cost, £156, including drainage, etc., or 4¼d. per ft. cube.

Can be duplicated at the same price, £156, or £150 house alone.

Two could be erected together at a saving of about 5 per cent.

Could be erected in two months.

All on ground floor. Living-room, with grate, 11 ft. by 11 ft. by 8 ft. 6 in. Kitchen-scullery, with range copper, 13 ft. by 10 ft. 6 in. by 8 ft. 6 in. Larder, lobby, and w.c. Porch. Three bedrooms (cupboard to each), 13 ft. by 9 ft. 6 in. by 8 ft. 6 in., 13 ft. 3 in. by 9 ft. by 8 ft. 6 in., 11 ft. by 9 ft. by 8 ft. 6 in.

Walls, brick-on-edge Patent Spandrel. Rough cast outside. Hollow space roofs felt and compo. Board inside.

Floors, timber.

Roof, tiled.

Foundations, 6 in. of concrete all over; extra concrete to stanchions.

Aspect of front door, east.

Wash-down pedestal closet. Water butts. Four-inch main drain, with trapped inspection chamber.

The feature of the exhibit is the company's Patent Spandrel wall system. The walls are composed of brick-on-edge, reinforced with ironwork and built in cement mortar. They are declared to be as strong as ordinary 9-in. walls and self-supporting; foundations are therefore required under stanchions only. Damp-proofing is assured by rough cast outside and hollow space inside, with additional protection by roofing felt, &c. "It is a modern idea of an exceedingly strong wall construction, combining ventilation and efficiency with great cheapness of construction."

61. W. Taprell Allen, F.R.I.B.A., and Shrouder & Matthews, Builders, conjointly.

Cottage. Class 1.

£140 (prime cost), or 4½d. per ft. cube (prime cost).

Enclosed by small wicket gate and privet hedge, computed to cost £7 (prime cost).

Can be erected in ten weeks.

Can be duplicated at from 15 to 20 per cent. extra according to distance from Stevenage.

Ground and first floors. Living-room, with range, 13 ft. 3 in. by 10 ft. 3 in. Scullery, with copper, sink, and range, 9 ft. by 8 ft. 1st bedroom, 14 ft. by 8 ft. 6 in., with fireplace. 2nd bedroom, 10 ft. 6 in. by 9 ft., with fireplace. 3rd bedroom, 10 ft. by 8 ft., without fireplace. Pantry, coal-house, barn, w.c., and lobby, also porch, w.c., and a spacious cupboard upstairs.

Walls, partly 9-in. brick and timber framing over, plastered externally and internally.

Floors, boarded in living-room and bedrooms; tiled in porch, scullery, lobby, and pantry; brick in barn, coal-house, and w.c.

Roof, sand-faced hand-made tiles.

Foundations, concrete.

Front door, west.

W.C. Water butt. 4-in. glazed pipe to sewer, with manholes and intercepter.

Designed with the idea of being picturesque and commodious in arrangement, with every convenience and no ugly outbuildings. There is a barn or tool-house, an essential adjunct to a rural cottage.

9-in. brickwork to the level of the window sill, where there is a continuous Broseley tile weather-course round the outside, and a rounded wood ledge on the interior, where there is the set-off. Above this the work is carried out in timber framing, being plastered both inside and out, thus leaving a hollow space and ensuring dry and healthy rooms. "Were this method adopted for bedrooms instead of the damp 9-in. wall," says the architect, "we should hear less of consumptive children with weak and afflicted eyes, delicate health, and many other illnesses originating from damp houses."

62. **Oswald P. Milne,** 77, Chancery Lane, London, W.C.

Cottage Class 1.

Cottage fully fitted, but without bath, £133. Cottage, as fitted with bath and hot water supply, £149. 4½d. per ft. cube; with bath, 5d. per ft. cube. Prime cost.

Could be built in eight to ten weeks.

Could be duplicated at prices above stated, plus 20 per cent.

Ground and first floors. Living-room, with range, 15 ft. 6 in. by 11 ft. 4 in. by 7 ft. 9 in. high. Scullery, with bath and copper, 9 ft. 4 in. by 7 ft. 6 in. by 7 ft. 9 in. high. Bedrooms (three), 9 ft. by 13 ft. 4 in. by 9 ft. high, 6 ft. 2 in. by 13 ft. 4 in. by 9 ft. high, 12 ft. by 8 ft. 6 in. by 9 ft. high. Pantry. Two cupboards. Coal hole. Shed for wood, garden implements, etc.; and w.c.

Walls, 9-in. brickwork 18 in. up from ground level. Above, 4-in. studding covered on the outside with plaster to height of 8 ft. Weather-boarded and plastered on the inside.

Floor of scullery and pantry tiled; rest boarded.

Roof covered with red tiles.

Foundations, concrete 15 in. deep under walls, and 6 in. thick over whole of the site.

Front door on east side.

W.C. If in rural district would be fitted with e.c. Water laid on from main. Rain-water collected in water butts. Drainage in this case to Company's drainage.

An attempt has been made to produce a cottage that will be light, cheerful, and comfortable to live in, and up to date in its internal and sanitary arrangements. It is contended that the cottage shows that "it is possible at a very moderate cost to build a well-proportioned and artistic cottage, a cottage that will harmonise with the delightful villages and rural districts of England, and that will look like a country dwelling and not like a small suburban villa entirely out of its proper surroundings that so often poses as a country cottage, blurring our country side. The principles that give so much charm to the old cottages of England have been studied and followed—simple and proper use of such materials as may be found locally.

"Internally the convenience and modern needs of the labourer have

been studied, and to this end a bath has been fitted and hot water supply laid on to bath and sink.

"Timber and material thoroughly suitable for this class of building and one that has been much neglected owing to the action of the Rural District Councils, has been largely used in the construction. The same effect could of course be obtained by the use of brick at a very slightly greater cost.

"The cottage has been furnished with simple old furniture by Mr. Percy A. Rodwell, of 6, Sun Street, Hitchin."

65. Baillie Scott, Fenlake Manor, Bedford.

Pair of Cottages. Class 4.

Cost price for the pair, £420, or £35 per room.

Fencing, gate, and paved entrance court in patterns of cobble stones, etc. Price not stated.

Can be built in about three months.

Two storeys. Kitchen living-room, 12 ft. by 20 ft. by 7 ft. 6 in. high. Parlour, 12 ft. by 9 ft. Scullery, with gas stove, sink, and boiler, 9 ft. by 12 ft. Bedrooms, 12 ft. by 13 ft. by 8 ft., 11 ft. by 7 ft. by 8 ft., 9 ft. by 12 ft. by 8 ft. high. Pantry. E.C. Coal.

Walls, 9-in. brick, rough cast, with oak half-timber wall.

Floors, all red paving bricks on ground floor; boarded on upper floor.

Roof, oak red tiles.

Foundations, concrete.

Front doors are on east front, but face north and south respectively.

E.C. Rain-water barrels. Water from main. Cesspool from sinks.

One cottage is furnished.

The two cottages are arranged so that they can be turned into one.

See "An Architect's Confession of Faith."

67. Co-partnership Tenants' Housing Council, 22, Red Lion Square, London, W.C. (Garden City Tenants.)

Pair of Cottages. Class 2.

£300 per pair, or 4d. per ft. cube.

Could be duplicated for £300 per pair.

Could be built in two months.

Ground and first floors. Living-room, 16 ft. by 13 ft. 6 in. by 7 ft. 9 in., with range. Scullery, 11 ft. 6 in. by 8 ft. 3 in. by 7 ft. 9 in., with bath, copper, and sink. Bedrooms, 14 ft. by 10 ft. 6 in. by 8 ft., 12 ft. 6 in. by 9 ft. by 8 ft., 12 ft. 6 in. by 8 ft. by 8 ft. Coals. W.C. Tools cupboard. Pantry. Dresser and cupboards in bedrooms.

9-in. brick walls.

Ground floor, concrete with Jarrah wood joints; first floor, wood joists and tongued and grooved flooring.

Tiled roof on battens nailed to rafters.

9-in. Portland cement concrete foundations, with blue bricks, vitrified under damp-course asphalt.

Front door faces south-west; living-room ditto.

W.C. with waste-water preventer. Rain-water into tubs, and drinking water from Water Company. Cesspools (temporary).

The claim for this cottage is that it combines pleasing appearance with cheapness, comfort, and light.

The bath is supplied with hot water from the copper. The bath has a hinged wood top, to be used as table when the bath is not in use. There are ventilators in every room.

69. A. H. Clough, Burley, Ringwood, Hants.

Cottage. Class 4.
Cost, £100 to £110.
Can be duplicated at the same price.
Could be erected in two months.
Ground and first floors. Living-room, with range, 13 ft. by 11 ft. by 8 ft. Scullery, with fire and copper, 10 ft. 3 in. by 7 ft. 6 in. by 8 ft. Bedrooms, 13 ft. by 11 ft. by 8 ft. 6 in., 10 ft. 3 in. by 7 ft. 6 in. by 8 ft. 6 in. Pantry, two cupboards, shed for coals and wood, etc.
Floors, wood and concrete.
Roof, Bridgwater tiles.
Foundations, concrete.
Aspect of front door, south.
E.C. Tubs for rain-water. Cesspool.

Plot marked "Clough." **A. H. Clough**, Castletop, Burley, Ringwood, Hants.

Cottage.
Cost, £110, or 4d. per ft. cube.
Can be duplicated for £110.
Can be built in two months.
Two storeys. Kitchen, with range, 13 ft. by 11 ft. by 8 ft. Scullery, with fire and copper, 10 ft. 3 in. by 7 ft. 6 in. by 8 ft. Bedrooms, 13 ft. by 11 ft. by 8 ft. 6 in., 10 ft. 3 in. by 7 ft. 6 in. by 8 ft. 6 in. Larder and cupboard. Shed for coal and wood.
Walls, wood.
Floors, board.
Roof, tiles.
Foundations, concrete.
Aspect of front door, south.
E.C.

69a. John A. Brodie, M.Inst.C.E., M.I.Mech.E., City Engineer, Liverpool. (By courtesy of the Liverpool Corporation.)

Cottage. Class 1.
Cost, £150, or 3¾d. per ft. cube.
There would be a saving on two cottages of 5 per cent.; on four, of 7½ per cent.
Three to six days only are occupied for work above foundations.
Ground and first floors. Kitchen, 12 ft. by 13 ft. by 8 ft., with range. Parlour, 8 ft. 6 in. by 13 ft. by 8 ft., with fireplace. Scullery, 7 ft. by 8 ft. by 8 ft., with sink and boiler. Bedrooms, 12 ft. by 13 ft. by 8 ft., 8 ft. 6 in. by 13 ft. by 9 ft., 7 ft. by 11 ft. 3 in. by 8 ft. Pantry. Fuel and store, and w.c.
Walls, concrete slabs made from destructor clinker, slightly reinforced with steel. Thickness, 6 in. throughout.
Floors, concrete, with tongued and grooved boarding in centre.
Roof, concrete.
Foundations, concrete.
South aspect.
Earthenware w.c. with flushing cistern. Rain-water butt. Drainage to cesspool in garden.
Mr. Brodie lays stress on the following points:—
The principle adopted in the construction of each room in the building

has been that of a dovetailed box, in which each of the four sides, the floor, and ceiling of the rooms, is made of one concrete slab suitably reinforced with steel and made in a mould. After maturing, the slabs are conveyed to the site and erected in position.

Economy—due to utilisation of waste materials, small amount of labour throughout the various processes, rapidity of erection owing to the small number of pieces to be handled.

Advantageous arrangement of material in slabs, viz., rich proportion of cement in concrete, which is also compressed, used for outside skin where waterproof quality is desirable; poorer proportion of cement in concrete used for insides, which, being uncompressed and of a porous character, is suitable for taking a distemper wash or paper, without any further treatment.

Expense in woodwork reduced to a minimum, as, owing to the possibility of accurate moulding in concrete, the hinges of doors and windows can be screwed direct to the concrete.

Long life of building.

Small cost of upkeep and insurance.

This system of building construction was originally designed by Mr. Brodie with the special object of providing a thoroughly sanitary and economical building, suitable in every way for the housing of the poorest classes displaced owing to the demolition of insanitary areas in Liverpool The benefits of the system can be most fully obtained where the work to be carried out is on a considerable scale, and where approximate repetition in size of slabs is possible.

69—71. A. H. Clough, Burley, Ringwood

Cottage. Class 1.

Cost, £120.

Two floors. Living-room, with range, 12 ft. 6 in. by 11 ft. 6 in. by 7 ft. 6 in. Parlour or third bedroom, with grate, 9 ft. 6 in. by 7 ft. 6 in. by 7 ft. 6 in. Scullery, with copper, 9 ft. 6 in. by 6 ft. 3 in. by 7 ft. 6 in. Bedrooms, 13 ft. by 12 ft. by 8 ft., and 15 ft. by 10 ft. by 8 ft. Pantry. Coal shed.

Walls, 11-in. hollow.

Floor, boards.

Roof, Bridgwater tiles.

Foundations, concrete.

Aspect of front door, south.

E.C. Water laid on.

For further particulars see Mr. Clough's double cottage, Classes 2 and 4.

69—71. A. H. Clough, Burley, Ringwood.

Cottage. Class 4.

Cost, £135 (six rooms).

Two floors. Living-room, with range, 12 ft. by 11 ft. 6 in. by 7 ft. 6 in. Parlour, with grate, 12 ft. by 10 ft. by 7 ft. 6 in. Scullery, with fireplace and copper, 12 ft. by 7 ft. by 7 ft. 6 in. Bedrooms, 13 ft. by 10 ft. by 8 ft., 9 ft. 6 in. by 9 ft. by 8 ft., and 13 ft. by 10 ft. 6 in. by 8 ft. Pantry. Coal-shed.

Walls, 11-in hollow.

Floors, board.

Roof, Bridgwater tiles.

Foundations, concrete.

Aspect of front door, south.
E.C. Water laid on.
For further particulars see Mr. Clough's double cottage, Classes 2 and 4.

70. A. H. Clough, Burley, Ringwood.

Double Cottage. Classes 2 and 4.
Cost, £230.
Two floors. Living-room, with range, 12 ft. by 12 ft. 6 in. by 7 ft. 6 in. Parlour or third bedroom, 9 ft. by 8 ft. by 7 ft. 6 in. Scullery, with grate and copper, 9 ft. by 7 ft. by 7 ft. 6 in. Bedrooms, 12 ft. by 12 ft. by 8 ft. 9 in., 15 ft. by 9 ft. by 8 ft. 9 in. Pantry. Coal shed.
Walls, 11-in. hollow.
Floors, board.
Roof, Bridgwater tiles.
Foundations, concrete.
Aspect of front door, south.
E.C. Water laid on.
Cottages exactly similar to those exhibited by Mr. Clough are now being erected at Hartfield, Sussex, and Christchurch, Hants.
The designer and builder of these cottages has now built upwards of a hundred, of which hardly any two are alike.
The experience gained shows him that it is very difficult indeed to ascertain the cost of any particular building, and that it is impossible without a full statement of the cost of material delivered at any given site to say (1) what the cost will be, (2) how the cost can best be reduced to the lowest point.
He is of opinion that the cottages now exhibited by him will generally be found a particularly cheap form of building. He desires to call attention to the arrangement by which in three of the cottages a third bedroom is provided on the ground floor. He is sure that this arrangement is far more economical of space and cost than any method of placing three rooms over two.

72. The Darlington Construction Co., Ltd., Bank Top, Darlington.

Labourer's Cottage. Class 1.
Cost, erected on purchaser's foundations, £150, or about 3.6d. per ft. cube.
For permanent occupation if sold; if not sold will be removed.
Could be duplicated at £150 erected on purchaser's foundations. If two together were built, 7 per cent. on total cost would be saved; if four, 5 per cent.
Cottage could be built in about four to five weeks from date of order.
All on ground floor. Living-room, 17 ft. by 12 ft. 9 in. by 8 ft. 6 in., with range. Two bedrooms, 12 ft. 9 in. by 8 ft. 9 in. by 8 ft. 6 in. (one with fireplace); one bedroom, 8 ft. 6 in. by 8 ft. 6 in. by 8 ft. 6 in., with fireplace. Scullery, 12 ft. 9 in. by 8 ft. 6 in. by 8 ft. 6 in., with set-pot and grate. Pantry, 8 ft. 6 in. by 4 ft. 3 in. by 8 ft. 6 in., with shelves. Coal-house, 8 ft. 6 in. by 4 ft. 3 in. by 8 ft. 6 in.
Walls composed of 1-in. weather-boards, one layer of inodorous felt, and asbestos cement sheeting ¼ in. thick. The result of an experiment carried out recently by the College of Science at Newcastle indicated that

the above combination was equivalent, when temperature conditions were steady, to 9 in. of brickwork.

Floors of 1-in. grooved and tongued boards.

Roof of asbestos tiles, laid upon laths fixed to timber rafters on timber roof principals.

Foundations, brick, in compliance with district by-laws.

Aspect of front door, south.

E.C., with movable pan. Rain-water tubs. Cesspool is placed 40 ft. from cottage.

Exhibitors state that all their wood is cut and dressed at their own saw mills in Sweden, where it is most carefully dried before being used and in a patent manner, of which they are the proprietors. Also that their system "entirely dispenses with the use of nails, screws," etc., and what is considered by them to be of immense advantage in wooden structures, "in the event of any wood shrinking, it allows for adjustment, and all boards can be closed up."

73. Hesketh & Stokes, 110, Cheapsside, E.C. Builders **Messrs. Cubitt.**

Cottage. Class 4.

Cost, £200.

Saving, two built together, 2½ per cent.; if four, 5 per cent.

Time to erect cottage, two months.

All on ground floor. Kitchen, with range, area 154 ft. sup. Parlour, with stove, area 115 ft. sup. Scullery, with copper and sink, area 77 ft. sup. Bedroom, with stove, area 115 ft. sup. Two bedrooms, each area 77 ft. sup. Central hall, 50 ft. sup. Coals, larder, etc. Average height of rooms, 9 ft. 6 in.

Walls, concrete.

Floors, sand cement and wood.

Roof, slates on concrete.

Foundations, concrete.

Front door, south.

E.C.

The chief feature is the economical employment of reinforced concrete.

Economical considerations require that as far as possible there should be a repetition of parts, and that the wall surfaces should be diminished to a minimum consistent with sufficient area of rooms to meet any recognised standard of healthy conditions. These two considerations led to the following conclusions, viz.:—(1) That the nearer a building approaches a circle the larger is its contained area; and (2) a polygonal figure of 16 sides gives the required repetition of parts.

All the living-rooms, both in winter and summer, get direct sunlight into them. The upward slope of the roof from the walls gives an opportunity of ventilation towards the centre where the chimneys are collected into one. The inner hall gives convenient access to all the rooms in the cottage.

The walls are formed of two 2-in. slabs of concrete separated by an air space. The roof is formed with concrete slabs covered with slates, and the floor and foundations consist of a bed of reinforced concrete not less than 6 in. thick in any part, with wood floors to living-rooms. The divisions between the rooms are formed of 2-in. concrete slabs. The stoves to parlour and large bedroom are warm air grates of special pattern giving warm fresh air to the adjoining bedrooms.

74. Alfred J. Bateman, Ramsey, Hunts. Architect: **R. Johnston, F.S.I.**

Pair of Cottages. Class 2.

Cost, £300; under 4d. per ft. cube.

Could be duplicated for £300.

Could be built in three months.

Ground and chamber floors. Living-room, with range, 15 ft. 6 in. by 11 ft. 1½ in. by 8 ft. 6 in. Parlour, with hob-grate, 12 ft. by 12 ft. by 8 ft. 6 in. Wash-house, with copper, 8 ft. by 8 ft. Bedrooms, 12 ft. by 10 ft. 6 in. by 8 ft., 12 ft. 7½ in. by 7 ft. 6 in. by 8 ft., 9 ft. 9 in. by 7 ft. 6 in. by 8 ft. Pantry. Four cupboards.

9-in. brick walls, for outside and party walls.

Floors, wood and tiles.

Roof, plain tiles; ruberoid flat.

Foundations, hydraulic lime concrete under all walls, and also under all floors.

Aspect of front doors, east and west respectively.

E.C.'s. All rain-water is caught and preserved. Company's water laid on to sinks.

The cottages are for the occupation of agricultural labourers. It is contended that by building a pair rather than a single cottage better accommodation for the amount expended can be obtained, as well as larger rooms, concrete over the site, and greater general warmth, all four sides not being exposed to the weather.

The wash-houses are placed one behind the other, with the object of removing the e.c.'s as far as possible from the living portion of the cottages, and placing the wash-houses entirely apart from the living-kitchen, thus preventing the air of the whole house becoming saturated with steam and the smell of washing.

Large pantry. "Ruberoid" flat over front projection, in addition to giving a pleasing effect to the elevation, enables the cottages to be roofed inexpensively, with one small span, thus avoiding great height in the roof and consequent waste of space, and also the cutting of roof to form gable hips and valleys.

There is no lead work. A tile floor is provided in living-room at slightly extra expense over the ordinary wood floor, on account of the extra cleanliness, and also ease of cleaning.

The builder claims that the erection of cottages of this size, etc., at the price is due to the fact that, besides being a builder, he is also the manufacturer of the bricks, cement, hydraulic lime, roofing tiles, paving squares, etc., used in the cottages.

76. Ernest Clarke, Snow Hill, Melton Mowbray.

Cottage. Class 1.

Cost, £145, or 3¾d. per ft. cube.

Could be erected in a month.

Could be duplicated for approximately £145. 7½ per cent. could be saved by erecting two together.

Two storeys high. Living-room, with range, 12 ft. by 13 ft. by 7 ft. 8 in. high, plus bay window 6 ft. by 2 ft. Scullery, 10 ft. 9 in. by 9 ft. by 7 ft. 8 in., with large oven, washing boiler heated by waste heat from range and scullery oven for constant supply of hot water, heated with fire under for washing purposes; bath, with tap from washing boiler for hot water, and one from tank for cold; canopy over copper

to carry off steam. Bedroom, ground floor, 8 ft. 3 in. by 13 ft. by 7 ft. 8 in. high. Front bedroom, 14 ft. by 13 ft. by 8 ft. 6 in. high for four-ninths of the area. Back bedroom, 11 ft. 6 in. by 9 ft. by 8 ft. 6 in. high for four-ninths of the area. Pantry. Larder. One cupboard downstairs; 3 large closets upstairs averaging 12 ft. by 3 ft. and 5 ft. high on high side.

Walls, brick and cement; outside walls, 9 in. thick, built hollow; inside walls, 4½ in. thick; stuccoed outside, and plastered inside with cement.

Ground floors of scullery, pantry, larder, and passage, cement concrete. Living-room and bedroom, 1-in. boards on cement concrete. Upstairs floors, 1-in. boards on felt.

Roof, timber, felt, and slate.

Front has south-south-west aspect.

E.C. Rain-water, 200-gal. galvanised tank over e.c. and coals, with taps on sink and copper. Four-inch drain to cesspool, 50ft. from house, ventilated at end furthest from house; air inlet at house end.

It is contended that the walls, being built of bricks and cement, are durable, that the cavity equalises the inside temperature, that the stucco ensures them being dry, and that the cement plastering is more durable than ordinary lime plastering.

Ten gallons of hot water for bath will be always available when a fire is used, either in living-room or scullery, as the spare heat from both fireplaces heats the washing boiler.

The windows open so that they can be cleaned from the inside.

The casements and sills of frames are of oak.

For ventilation a Tobin tube is fixed in living-room and lower bedroom, and there is a fireplace to each room in the house.

The external painting and repairs will be inexpensive.

77. **Wire-wove Roofing Company,** 108, Queen Victoria Street, London, E.C.

Labourer's Cottage. Class 1.

Cost, £150, or 3·34d. per ft. cube.

Cost of sundry fixtures and furniture undetermined.

Cottage could be duplicated for £175.

Could be erected in from four to five weeks.

All on ground floor. Living-room, 21 ft. by 14 ft. 6 in. by 8 ft. 6 in. with range giving hot water supply to scullery. Scullery, with sink and copper, 17 ft. 6 in. by 9 ft. One bedroom, 13 ft. by 12 ft.; two, with fireplaces, each 12 ft. by 10 ft. 6 in. Lobby. Three cupboards. Back porch, with coal-house and e.c., together 10 ft. by 7 ft.

Walls, overlapping vertical boards, 1¼ in. by 8 in., interlined with ferol sheeting and lined with match-board, covered with canvas and Hall's distemper.

Floors, 1-in. tongued and grooved pitch-pine boards.

Roof, 1-in. tongued and grooved boards covered with thick ferol sheeting.

Foundations, brick sleeper walls with thick ferol damp course.

Aspect of front door, south-west.

"Simplest" e.c. Four water butts.

Essentially a country cottage, with no pretentions to villa character, and nothing sacrificed to fictitious "gentility." Everything planned for comfort and convenience. Walls of living and bed rooms have four

separate thicknesses of non-conducting material to resist heat and cold. Mr. Allport, managing director of the Company, writes:—"This cottage is altogether a typical example of the kind of construction I advocated for estate purposes in my letter published in *The County Gentleman* on this subject last year."

78. E. H. Sneyd, Basford Park Road, Stoke-on-Trent. Builder, **Joseph Cooke,** Porthill, Stoke-on-Trent. Architect, **T. H. James,** Basford, Stoke-on-Trent.

Cottage. Class 1.

Cost, £150.

Extras, drainage, fencing, gas supply and fittings, and dresser.

Could be built in two months.

Cost at which could be duplicated, £300 per pair.

Two floors. Living-room, with range, 13 ft. 6 in. by 13 ft. 6 in. by 8 ft. Scullery, with bath, etc., 12 ft. by 9 ft. by 8 ft. Hall, 6 ft. by 7 ft. by 8 ft. Larder and pantry, 6 ft. by 5 ft. Coals, 6 ft. by 8 ft. Movable cupboard in living-room. Bedrooms, 13 ft. 6 in. by 13 ft. 6 in. by 8 ft., 12 ft. by 9 ft. by 8 ft., 9 ft. 6 in. by 9 ft. 6 in. by 8 ft.

Walls, bricks throughout, 9 in. outside, 4½ in. inside.

Ground floor, living-room, cement; other floors, quarries.

Roof, best red brindled tiles.

Foundations, concrete.

Aspect of front door, south-south-east.

E.C. Town water supply. Cesspool.

The hall gives access to all parts of the house; five doorways and stairfoot open into it. It is further claimed that the larder is good and that the living-room is large, with good windows, giving three views. There is one door only. Fireplace is in corner, whence the room is best warmed. It is not possible to stand in the way of the light when using the fire. Floor is composed of concrete, left with cement face 1 in. thick, "forming the most suitable surface for laying linoleum or carpets." Ball catches are fixed on doors inside the house, as they do not get out of order easily; and the door can be opened or shut even if the hands are loaded. Deep skirtings, wide window ledges, and picture rail are fitted.

The scullery is large enough for all the work done in it being carried on in comfort. As a bath is provided, the absence of an outer door leaves the room as private and warm as an upstairs one would be.

79. A. Randall Wells, Architect, 25, Cornwallis Gardens Hastings.

Detached Cottage. Classes 1 and 4.

Cost, £150, plus the profits and other items deducted in accordance with conditions, or 2¾d. per ft. cube.

Could be erected in two months in dry weather.

Ground floor, with bedrooms on first floor. Living-room, 15 ft. by 14 ft. by 7 ft. 6 in. Parlour, 14 ft. by 10 ft. by 7 ft. 6 in. Scullery, with bath, 14 ft. by 7 ft. by 7 ft. 6 in. Bedrooms, 14 ft. by 10 ft. by 8 ft. 6 in., 13 ft. 9 in. by 11 ft. by 8 ft. 6 in., 14 ft. by 14 ft. 4 in. by 8 ft. 6 in.; all with hanging recesses and fireplaces. Larder and fuel store, each 7 ft. by 5 ft. by 7 ft. 6 in. Two cupboards.

Walls, 9-in. brick.

Floors, ground floor except parlour 9-in. by 9-in. red quarries on concrete; parlour and bedroom, 1-in. boards on wooden joists.

Roof, hand-made pantiles.
Foundations, cement concrete.
Aspect of front door, south.
Closet, bucket under and box for earth. Water laid on from mains to sink. Rain-water taken to butts. Drainage by socketted pipes to a cesspool.

"In building this cottage," says the architect, "I have aimed at making a permanent dwelling which will encourage a working-class family (parents and perhaps four children) to live healthily, tidily, and in some comfort. Towards health there are three bedrooms, each capable of sleeping two persons.

"For comfort, I have provided a well-lighted (from the south) living-room, having a pleasant fireplace and economical cooking arrangements (an open Gloucester hob fire with a small oven capable of being heated at top and bottom, and an independent Norfolk oven); a small parlour in which to keep books and other things considered precious and to relieve the crowding of the living-room when all the family are at home; a scullery with a small fire for summer use, a sink, a copper, a bath, and food and fuel stores at hand. I have also arranged—what I consider to be of some importance—access from the bedrooms to the yard without passing through any room. This makes the emptying of slops an easy matter.

"For tidiness, I have given a kitchen cupboard, a linen cupboard, a curtained recess for clothes in each bedroom, and provided hooks for coats and hats, and a space for the perambulator near the front entrance. To provide these necessary things for the sum fixed on entails the severest simplicity in plan and construction, and the utmost economy of labour in every detail, and the using of materials and labour easily obtained in a rural district, and the avoidance of special materials and specialist workmen.

"Outside a stone district, the cheapest material at present on the market is machine-made bricks, and from the ease with which they are put together without the use of special plant I think they will for some time yet be the cheapest material of which to construct small permanent buildings.

"I would also draw attention to the plaster work, in which external angles have been almost avoided, and to the avoidance of large sheets of plaster for the ceilings on account of their becoming cracked and broken from the spring of the joists."

Cottage crockery by Josiah Wedgwood & Son, Etruria.
Furniture by M. C. Powell, Oakridge Lynch, Stroud, Gloucester.

80. **F. W. Troup**, 14, Gray's Inn Square, London, W.C.

Cottage. Class 1.
Cost, £150, or $4\frac{1}{16}$d. per ft. cube.
Can be duplicated for £150, plus the profits and other items deducted according to conditions for this Exhibition.
Could be erected in two months if fine weather.
Ground floor and attics. Living-room, with range, 16 ft. 3 in. by 11 ft. 9 in. Scullery, with copper, 11 ft. by average of 10 ft. Bedroom, ground floor, 9 ft. by average of 10 ft. 6 in.; bedrooms, attics, 12 ft. by 11 ft. 9 in., 12 ft. by 9 ft. Larder. Coal place. E.C. Two cupboards. Besides a bath which can be shut off the scullery.
Walls framed of 4-in. by 2-in. timbers, braced and covered with insu-

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lating paper and weather-boarding outside; lathed and plastered inside. Chimneys and foundations up to floor-level, brick.

Floors joisted and boarded, except scullery, etc.

Roof, pantiles.

Foundations, 6 in. of cement concrete over whole area, and extending 6 in. beyond walls all round.

Front door is at end, east.

E.C. Water from mains. Rain-water in butt overflows into soakwell. Bath waste and scullery sink discharge into open half-channel leading to gully. From this 52 ft. of glazed earthenware pipe leads to small cesspool in the kitchen garden, with the ventilation arranged to draw away from the house.

A special feature is avoidance of patents.

The objection that timber and weather-boarded walls are not permanent is met by the architect by the fact that repairs to these by the nearest village carpenter are easy and inexpensive.

Under nearly all by-laws (except the recent L.G.B. model for rural districts) the side walls of attic rooms would have to be contracted till the rooms were less than 6 ft. wide. This would reduce an otherwise comfortable attic room of 1,000 cub. ft. and 144 ft. of floor area to exactly half the cubic contents and 66 ft. of floor space!

81. **Smith & Brewer**, 2, Gray's Inn Square, London, W.C.

Cottage. Class 1.

Cost, £150, plus the extras allowed in the conditions of the competition, or 5½d. per ft. cube.

Can be repeated for £150, plus the extras allowed in the conditions.

Ground and first floors. Living-room, 16 ft. 6 in. by 11 ft. by 7 ft. 6 in. Scullery, 11 ft. by 8 ft. by 8 ft. Bedrooms, 11 ft. 6 in. by 11 ft. by 7 ft. 6 in., 11 ft. by 10 ft. 3 in. by 7 ft. 6 in., 8 ft. 10½ in. by 8 ft. 3 in. by 7 ft. 6 in. Coals, larder, e.c., store, and three cupboards.

Walls, 4-in. deal framing, covered externally with weather-boarding and internally with lath and plaster.

Floors, 1-in. yellow batten straight-joint flooring with splayed headings and mitred borders to hearth. Scullery floor is finished with cement and granite chippings.

Roof, pantiles.

Foundations, 9-in. brick walls resting on 1 ft. 6 in. by 9 in. concrete.

House has south aspect.

E.C. Rain-water butts. Water from mains. Waste from bath and sink discharge over channel leading to gully, and from thence in 4-in. approved quality glazed earthenware socketted drain pipes, jointed in cement, laid on 6 in. of cement concrete to cesspool 50 ft. from house. The drain to be disconnected from cesspool with intercepting trap and fresh air inlet.

Architects have aimed at the provision of as much space as possible in the living-room. A small bay window, such as may be seen in the old cottages of the neighbourhood, has been provided so as to add to the pleasantness of the room.

A hot bath can be obtained whenever the kitchen fire is alight.

E.C., fuel, etc., have been kept within the main block of the building, in order to avoid the unsightliness of detached outbuildings and so as to benefit from the extra amount of room on the first floor thus obtained.

The bedroom windows are placed in gables so as to avoid the expense of dormers. The width of the building is the same throughout, in order

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to simplify the construction by keeping all rafters, joists, etc., the same length.

Messrs. Heal & Son, Tottenham Court Road, W.C., have undertaken the furnishing of this cottage. A living-room and bedroom have been fitted in an inexpensive but artistic manner as examples of Messrs. Heal's work.

83. **The Marquis of Salisbury**, Hatfield, Herts. **W. Marshall**, Architect.

Two Single-storey Agricultural Labourers' Cottages.
Cost of cottages, only £300, or 4½d. per ft. cube.
The contract for cottages, offices, drains, and fencing is £330.
Cottages alone could be duplicated at £259 3s. 6d.
These cottages have been built for the Marquis of Salisbury at Cranborne, Dorset, for this amount.
All on ground floor. Living-room, with range, 13 ft. 6 in. by 11 ft. Scullery, 8 ft. by 6 ft. 6 in. Bedrooms, 11 ft. by 11 ft., 11 ft. by 8 ft., 9 ft. by 8 ft. Pantry, cupboard, shed for coal, and e.c.
All boarded floors, except scullery and pantry.
Roof, red tiles.
Foundation, cement concrete.
Aspect of front door, south.
E.C. Well and water butts. Rain-water drains only.

85. **The Society of Artists**, 52, New Bond Street, London, W. Designed by **Miss E. McClellan.**

Furnished Cottage. Class 1.
Cost, £150, or 4d. per ft. cube.
Could be built in two months.
Two floors. Living-room, with range, 15 ft. by 15 ft. by 7 ft. 6 in. Scullery, with copper, sink, and bath, 15 ft. by 6 ft. by 7 ft. 6 in. Bedrooms, 18 ft. by 11 ft. by 7 ft. 6 in., 16 ft. by 8 ft. by 7 ft. 6 in., 13 ft. by 9 ft. by 7 ft. 6 in. Pantry. W.C. Coals, etc.
Walls, concrete and timber, 6 in. thick.
Floors, timber.
Roof, asbestos.
Foundations, brick and concrete.
Aspect of front door, south-east.
W.C. Rain-water tubs. Cesspool.

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7 **C. Brightman,** Watford, Hertfordshire
8 **A. T. Carter,** 15, Waldemar Road, Wimbledon, S.W.
9 **W. T. Chinchen,** Crichel, Wimborne
10 **E. J. Church,** 5, Bloomsbury Square, W.C.
11 **V. Denison,** 53, St. Mark's Road, Notting Hill, W.
12 **D'Aintree & Rigby,** 6, Ravensbourn Road, Catford, E.C.
13 **C. G. Duell,** 15, Clarence Road, Kew Gardens
14 **B. Evans,** 34, Walsworth Road, Hitchin
15 **R. A. English,** Radium House, London Road, Stroud
16 **G. G. Flint,** 52, Carrow Road, Thorpe Hamlet, Norwich
17 **J. M. Farrell,** 48, Silver Crescent, Chiswick, W.
18 **A. Gray,** 54, St. Andrew's Street, Hertford
19 **T. H. Goodchild,** Elmwood Lodge, Layland, Finchley
20 **T. H. & G. B. Healey,** 145, Wilmer Road, Heaton, Bradford
21 **G. B. Imrie,** Town Hall Chambers, Feltham, Middlesex
22 **Mrs. Jevons,** 10, Hamilton House, Hall Road, St. John's Wood
23 **W. Lovatt,** Biddulph Moor, near Congleton
24 **G. Lucas,** 2, Vernon Place, Bloomsbury Square, W.C.
25 **J. R. Manning,** 10, Rollscourt Avenue, Herne Hill
26 **T. H. Nixon,** 116, Upper Tulse Hill, S.W.
27 **T. Skinner,** 14, Sunwell Street, Peckham, S.E.
28 **W. Simpkiss,** Swan Junction, Hunslet, Leeds
29 **J. Smith,** 25, Market Place, Romsey
30 **Smith & Brewer,** 2, Gray's Inn Square, W.C.
31 **E. G. Stockton,** Knowsley Cottage, Derby Street, Burton-on-Trent
32 **L. W. Tracey,** 49, Rann Street, Ladywood, Birmingham
33 **W. Webb,** Whitchurch, Salop
34 **F. Wheeler & Son,** 6, Staple Inn, W.C.
35 **W. T. Wire,** 29, Great George Street, Westminster, S.W.
36 **C. W. Woodhouse,** 3, Victoria Street, Brighton
37 **E. H. Rouse,** 33, Chesholm Road, Stoke Newington, N.
38 **W. J. K. Cornwell,** Cloody, Hope Street, Cambridge
39 **C. Batley,** Little Round Wood, Ipswich
40 **G. Lawrence,** 6, Clifton Gardens, Chiswick
41 **W. R. Mosley,** 146, High Street, Slough
42 **H. Burnham,** 56[a], Burnbury Road, Balham, S.W.
43 **Detmar Blow,** 9, King's Bench Walk, Temple, E.C (Model)
44 **Potter & Co.,** 66, Victoria Street, S.W.
45 **J. T. Walford,** Joppa, Edinburgh

CLASS 2.

1 **W. R. Billenness,** 36, Hastings Road, Maidstone
3 **H. R. Bird,** St. Thomas' Gate, Brentwood, Essex
4 **A. H. Loader Blake,** High Street, Biggleswade, Bedfordshire
5 **H. W. Bradock,** 74, Haydons Park Road, Wimbledon, S.W.
6 **M. Bunney,** 23, Queen Anne's Gate, Westminster, S.W.
7 **L. F. Crane,** Old House, Holland Street, Kensington, W.
8 **W. T. Chinchen,** Crichel, Wimborne
9 **B. Evans,** 34, Walsworth Road, Hitchin
10 **P. Morley Horder,** 148, New Bond Street, W.
11 **J. M. Farrell,** 48, Silver Crescent, Chiswick, W.
12 **G. B. Imrie,** Town Hall Chambers, Feltham, Middlesex
13 **G. Lucas,** 2, Vernon Place, Bloomsbury Square, W.C.
14 **W. Marshall,** Hatfield Park, Hatfield
15 **R. Banks-Martin,** 121, Plasket Grove, East Ham, E.
16 **W. Simpkiss,** Swan Junction, Hunslet, Leeds
17 **L. W. Tracey,** 49, Rann Street, Ladywood, Birmingham
18 **W. Wilson,** Stanmore, Middlesex
19 **C. W. Woodhouse,** 3, Victoria Street, Birmingham
20 **W. Webb,** Whitchurch, Salop
21 **G. Lawrence,** 6, Clifton Gardens, Chiswick
22 **W. R. Mosley,** 146, High Street, Slough
23 **Potter and Co.,** 66, Victoria Street, S.W.

CLASS 3.

2 **W. R. Billenness,** 36, Hastings Road, Maidstone
3 **A. H. L. Blake,** High Street, Biggleswade, Bedfordshire
4 **C. Brightman,** Watford, Hertfordshire
5 **A. T. Carter,** 15, Waldemar Road, Wimbledon
6 **L. F. Crane,** Old House, Holland Street, Kensington, W.
7 **Ethel Charles,** York Street, Chambers, W,
8 **W. T. Chinchen,** Crichel, Wimborne
9 **B. Evans,** 34, Walsworth Road, Hitchin
10 **J. M. Farrell,** 48, Silver Crescent, Chiswick, W
11 **R. A. Ford,** Three-Mile Cross, near Reading
12 **R. V. Hall,** Stump Cross, Halifax
13 **P. Morley Horder,** 148, New Bond Street, W.
14 **G. B. Imrie,** Town Hall Chambers, Feltham, Middlesex
15 **G. Lucas,** 2, Vernon Place, Bloomsbury Square, W.C.
16 **W. Simpkiss,** Swan Junction, Hunslet, Leeds
17 **C. W. Woodhouse,** 3, Victoria Street, Birmingham
18 **W. Webb,** Whitchurch, Salop
19 **C. Batley,** Little Round Wood, Ipswich
20 **E. G. Theakston,** 4, Hilldrop Road, London, N.
21 **G. M. K. Hunt,** 18, Nelbury Road, Kensington
22 **G. Lawrence,** 6, Clifton Gardens, Chiswick
23 **E. A. Rouse,** 33, Chesholm Road, Stoke Newington, N.
24 **W. R. Mosley,** 146, High Street, Slough
25 **S. Barrett & Driver,** 23, York Place, Baker Street, W

CLASS 4.

1 **Bennett & Bidwell,** Baldock, Hertfordshire
2 **Barrett & Driver,** 23, York Place, Baker Street, W.

3 **W. R. Billenness,** 36, Hastings Road, Maidstone
4 **M. Bunney,** 23, Queen Anne's Gate, Westminster, S.W.
5 **L. F. Crane,** Old House, Holland Street, Kensington, W.
6 **T. Dowson,** Meadow Fields, East Row, Sandsend, Whitby
7 **R. A. English,** Radium House, London Road, Stroud
8 **B. Evans,** 34, Walsworth Road, Hitchin
9 **J. M. Farrell,** 48, Silver Crescent, Chiswick, W.
10 **A. Gray,** 54, St. Andrew's Street, Hertford
11 **R. V. Hall,** Stump Cross, Halifax
12 **P. Morley Horder,** 148, New Bond Street, W.
13 **G. Lucas,** 2, Vernon Place, Bloomsbury Square, W.C.
14 **W. Marshall,** Hatfield Park, Hatfield
15 **L. W. Tracey,** 49, Rann Street, Ladywood, Birmingham
16 **G. St. Pierre Harris,** 8, Ironmonger Lane, E.C.
17 **H. Willey,** Somersfield, Reigate
18 **W. Wilson,** Stanmore, Middlesex
19 **W. T. Wire,** 29, St. George's Street, Westminster, S.W.
20 **C. W. Woodhouse,** 3, Victoria Street, Brighton
21 **T. H. & G. B. Healey,** 145, Wilmer Road, Heaton, Bradford
22 **J. R. Manning,** 10, Rollscourt Avenue, Herne Hill
23 **G. Lawrence,** 6, Clifton Gardens, Chiswick
24 **E. G. Theakston,** 4, Hilldrop Road, London, N.
25 **H. Burnham,** 56a, Burnbury Road, Balham, S.W.
26 **W. R. Mosley,** 146, High Street, Slough

ENTRIES FOR PRIZE OF £10 offered by MR. H. J. ELWES, F.R.S.

1 **W. H. Bowen,** Hollywood, Charlton King's, Cheltenham
2 **J. Smith,** 25, Market Square, Romsey
3 **— Charlton,** 66, Holborn Viaduct, E.C.
4 **B. Evans,** 34, Walsworth Road, Hitchin
5 **T. Skinner,** 14, Sunwell Street, Peckham, S.E.
6 **J. S. Webber,** 94, Queen Street, Maidenhead
7 **L. F. Crane,** 13, Holland Street, Kensington
8 **A. T. Carter,** 15, Waldemar Road, Wimbledon
9 **J. A. Hallam,** 18, St. Mark's Crescent, Regent's Park Road, N.W
10 **B. E. Atkinson, jun.,** 14, Rosslyn Hill, Hampstead, N.W.
11 **G. R. Keen,** Withington, near Andoverford, R.S.O., Gloucestershire
12 **W. R. Billenness,** 36, Hastings Road, Maidstone
13 **G. B. Imrie,** Town Hall Chambers, Feltham, Middlesex
14 **G. Lawrence,** 6, Clifton Gardens, Chiswick
15 **S. Barrett & Driver,** 23, York Place, Baker Street, W.
16 **Detmar Blow,** 9, King's Bench Walk, Temple, E.C.
17 **Bennett & Bidwell,** Letchworth

LOANS.

1 **F. G. Barnes,** Chatsworth, Chesterfield
2 **H. Cayley,** Bank Chambers, Rothwell, Kettering
3 **Coates & Johnson,** Bank Chambers, Market Harborough
4 **W. R. Cornell,** 32, Upland Road, East Dulwich, S.E.
5 **T. F. Galloway,** 146, High Street, Lewes
6 **G. Lucas,** 2, Vernon Place, Bloomsbury Square, W.C.
7 **J. Macintosh,** Strath Cottage, Galston, Ayrshire

8 **F. Thackeray,** Town Hall, Leigh, Lancashire
9 **F. Taylor,** 26, Temple Street, Aylesbury
10 **E. G. Theakston,** 4, Hilldrop Road, London, N.
11 **Society of Estate Clerks of Works,** 22, Havelock Road, Croydon
12 **R. Whitbread,** Carlton, near Nottingham
13 **A. Whitcombe,** 5, Newman Street, Oxford Street, W.
14 **C. J. Fox,** The Caravans, Braunston, North Devon
15 **The Corporation of Liverpool,** Liverpool
16 **R. C. Munro Ferguson, M.P.,** Novar, Evanton, Ross-shire
17 **Captain Pretyman, M.P.,** Orwell Park, near Ipswich
18 **C. J. Barker,** 25, Bedford Row, W.C.
19 **C. L. Gibbs,** 9, Percy Circus, W.C.
20 **H. Grunewald,** Bonn o/Rhein, Germany
21 **P. M. Fitzgerald,** Duke of Devonshire's Estate Office, Lismore (Model)
22 **Nicholson & Corlette,** 2, New Square, Lincoln's Inn, W.C.
23 **"Home Counties"** (care of W. Heinemann, Bedford Street Strand, W.C.). "How to Build or Buy a Country Cottage and fit it up."
24 **S. Barrett & Driver,** 23, York Place, Baker Street, W.
25 **B. Parker & R. Unwin,** Baldock
26 **H. S. Goodhart Rendel,** Chinthurst Hill, Guildford
27 **E. G. B. Eyre,** Warrens, Bramshaw, Lyndhurst
28 **P. Morley-Horder,** 148, New Bond Street, W.
29 **Horace Field,** 1, Langham Chambers, Langham Place

ENTRIES FOR PRIZE OF £10 Offered by the CO-OPERATIVE SMALL HOLDINGS SOCIETY (conditional on number of entries) for a Model of a Small Holding.

1 **W. Marshall,** The Park, Hatfield.
2 **W. R. Cornell,** 32, Upland Road, Dulwich, S.E.
3 **Detmar Blow,** 9, King's Bench Walk, Temple, E.C.
4 **S. Barrett & Driver,** 23, York Place, Baker Street, W.

UNCLASSED.

W. Campbell, 2, Bagnall Street, Hanley, Staffordshire
R. B. Davis, 7, Shakespeare Street, Stratford-on-Avon
Baker & Dadson, Green Hill, Harrow
C. O. Nelson, 1, Furnival Street, E.C.
Niven, Wigglesworth & Falkner, 104, High Holborn, W.C.

Materials, Fittings, Accessories, &c.

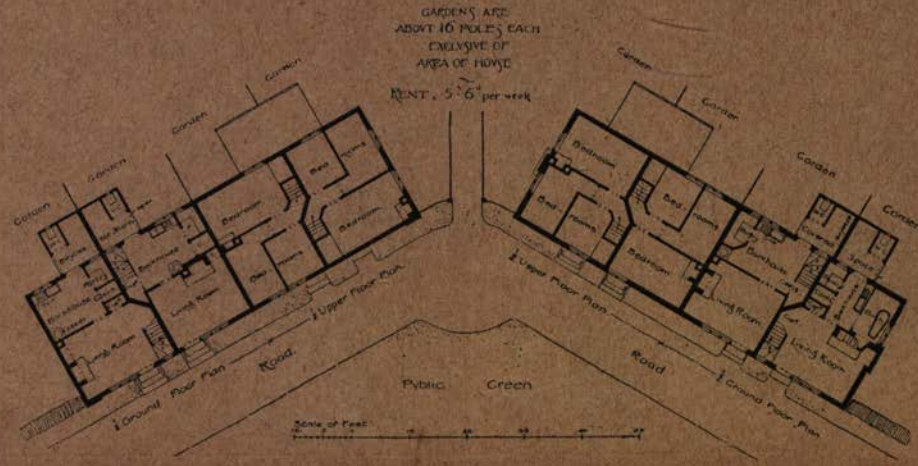
1 **C. Chancellor & Co.**, 13, Clerkenwell Road, E.C. Paints and roofing
2 **G. W. Lupton**, 42, Vallentia Road, Walthamstow. Building blocks
3 **H. Kettleby**, Artificial Stone Works, Abingdon. Window sill
4 **Ellis & Everard**, 10, East Street, Leicester. Building materials
5 **T. J. Syers & Co.**, 45, Wilson Street, Finsbury Square, E.C.
6 **Excelsior & Phœnix Fire-resisting Plates Co.**, 163, Palmerston House, E.C. Partition walls, etc.
7 **H. C. Cleaver**, 3, Eden Street, Hampstead Road, N.W. Panelling and fireplaces
8 **W. R. Cornell**, 32, Upland Road, East Dulwich, S.E. Model of cottage and one acre of land laid out in crops
9 **T. Durley**, Bolbec, Whitchurch, Aylesbury. Four models
10 **R. Whitbread**, Carlton, Nottingham. Window sills, casements, etc.
11 **Horsfall Destructor Co.**, 19, Old Queen Street, Westminster. Garden refuse destructor
12 **R. Blackwell & Co.**, 59, City Road, E.C. Ruberoid roofing, etc.
13 **British Lath-Splitting and Contracting Co.**, Gainsborough Road, Hackney Wick, N.E.
14 **J. Beardmore**, The Poplars, Bucknall, Stoke-on-Trent. Design for pad for rain-water pipes
15 **Valor Co.**, Valor Works, Aston Cross, Birmingham. Fire-preventing appliances
16 **Mackintosh & Sons**, Cambridge. Ironmongery
19 **Vickers & Field**, 6, Eldon Street, E.C. Wire bitumen damp-course. Asphalt for roofs. Wire bitumen sheeting for tanks, etc. Tar paving
20 **Cannon Iron Foundry**, Deepfields, Bilston, Staffordshire. Gas-cookers, etc.
21 **Teale & Somers**, Silver Royd Works, Wortley, Leeds. Iron mantels and fireplaces
22 **Clark, Hunt & Co.**, 159-160, Shoreditch, E. Cooking range
23 **Excelsior Patent Stone Co.**, Finedon Sidings, Northamptonhire. Stone and tile paving, etc.
24 **T. Impson (E. Impson)**, 13, Crown Point, East Dereham. Concrete building blocks
25 **National Co-operative Quarries**, 30, Temple House, Tallis Street, E.C. Slates
30 **E. A. Rawlence**, Newlands, Salisbury. Sanitary closet
31 **T. Donkin**, 4, Albert Road, Bournemouth. Earth closet
32 **G. Bradley**, 1, Connaught Villas, Wick Road, Hackney Wick. Earth closet
39 **Silicate Paint Co.**, Charlton, Kent. Duresco Painting in Cottages 27, 40, 61, 67
40 **Moule's Patent Earth Closet Co.**, 5a, Garrick Street, W.C. Earth closets

41 **Le Grand & Sutcliff,** 125, Bunhill Row, E.C. Tube well
42 **Cardon & Cresno,** 61, Chancery Lane, W.C. Fencing
43 **Duke & Ockenden,** 126, Southwark Street, E.C. Windmill
44 **S. H. Barnsley,** Sapperton, near Cirencester. Furniture in F. W. Troup's cottage
45 **W. Wallace & Co.,** 151, Curtain Road, E.C. Complete cottage furniture in Cottage No. 58
46 **Ellis & Everard,** 10, East Street, Leicester. Fencing to Cottage No. 17
47 **The Economic Fencing Co,** Billiter House, Billiter Street, E.C. Fencing
48 **T. P. Steele,** Snow Hill, Shelton Stoke-on-Trent. Furniture in Cottage 34
49 **Chelsea Furniture Co.,** 4, Symons Street, Sloane Square, SW.
Warmsley & Co., 61, Frith Street, Soho Square (*too late for classification*).

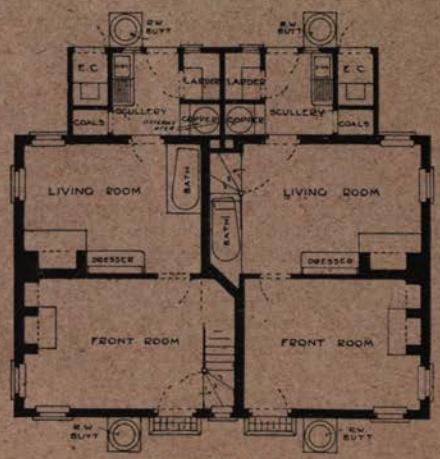
PLANS OF THE COTTAGES.

These Plans of the Cottages are arranged in the same order as the entries in the Catalogue.

The set of Plans is almost complete.

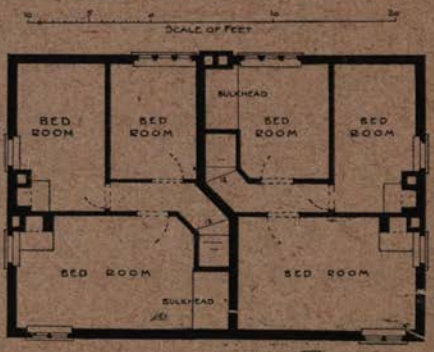


01.—Cottages by Mr. Geoffry Lucas, 2, Vernon Place, Bloomsbury, and 23, Brand Street, Hitchin.



GROUND FLOOR PLAN

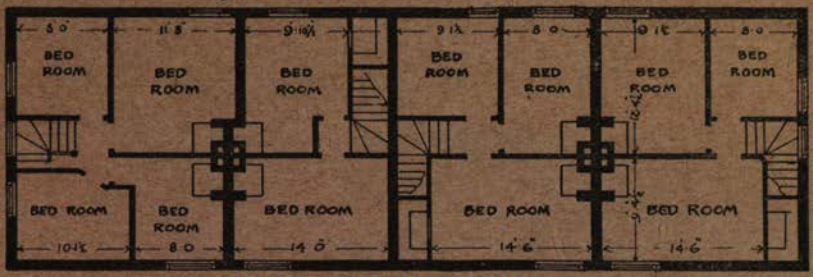
NORTON
GARDEN CITY ESTATE
PAIR OF COTTAGES



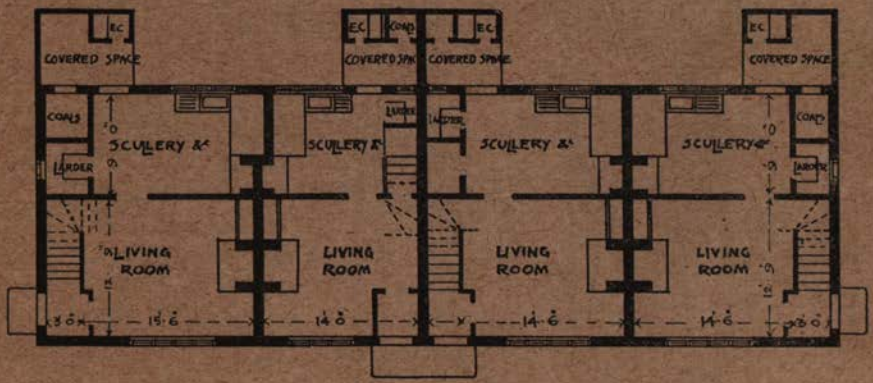
FIRST FLOOR PLAN

01.—Cottages by Mr. Geoffry Lucas, A.R.I.B.A., 23, Brand Street, Hitchin.

SKETCH FROM GREEN LANE



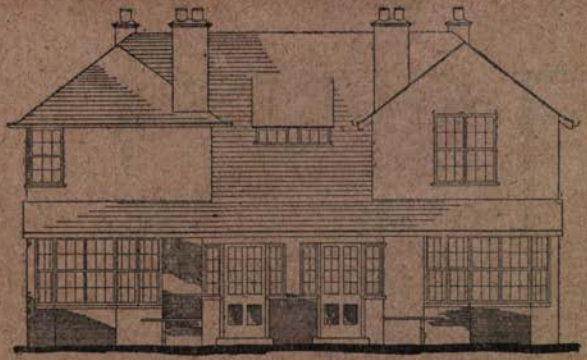
·FIRST FLOOR PLAN·



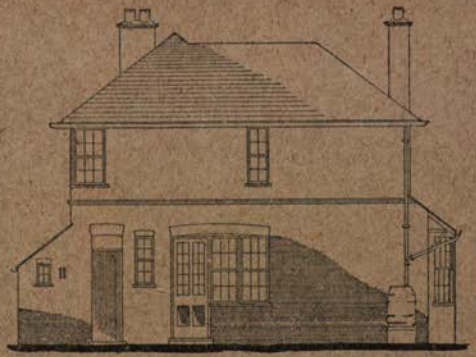
·GROUND PLAN·

SCALE OF FEET 0 10 20 30 40 50 FEET

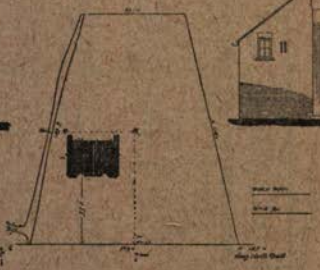
02.—Cottages by G. M. Crickmer, Architect, 1, Lincoln's Inn Fields, W.C.

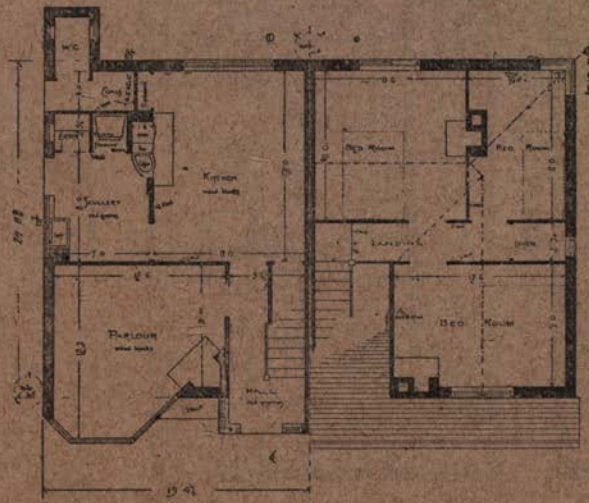


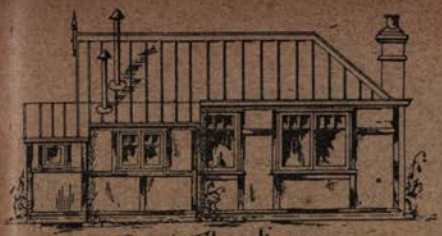
FRONT ELEVATION



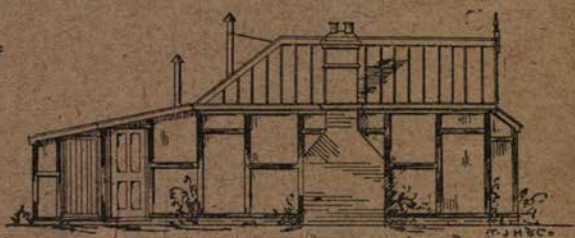
SIDE ELEVATION




Kitchen
Scullery
Parlour
Bed Room
Bed Room
Bed Room
Hall
Landing
Cupboard
Cupboard
Cupboard

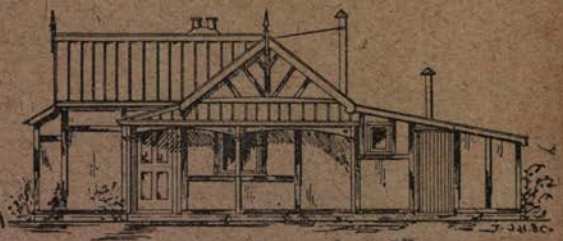


Back Elevation

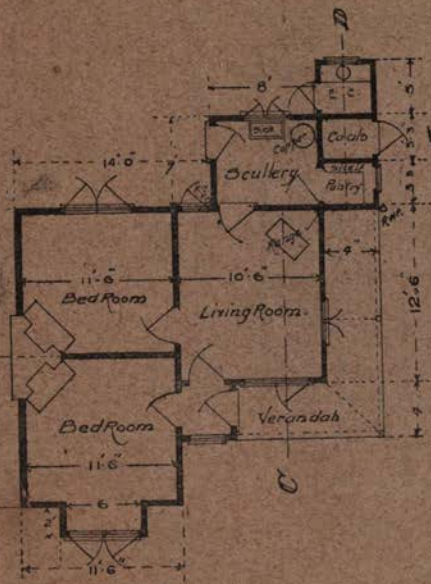


Side Elevation

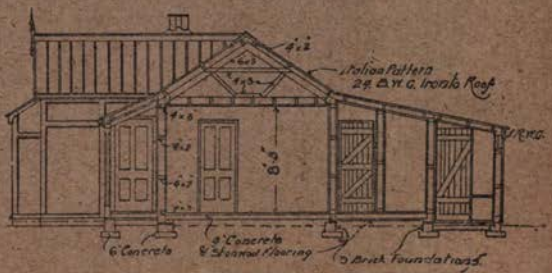
Front Elevation



Side Elevation

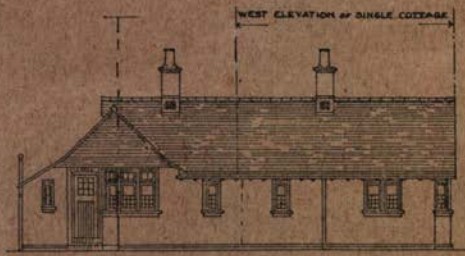


Plan



Section C.D.

1.—Cottage by Messrs. T. & J. Hawkins & Co., Ashford, Middlesex.

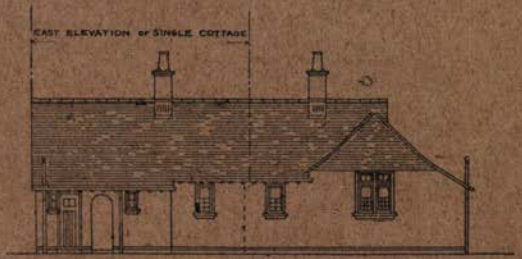


WEST ELEVATION

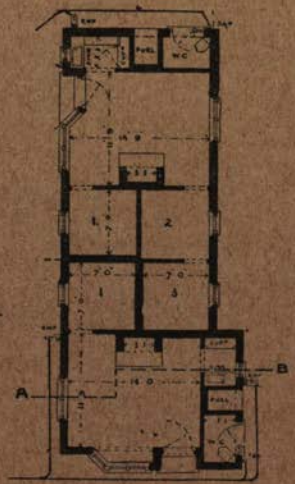
SECTION A–B

SOUTH ELEVATION

NORTH ELEVATION

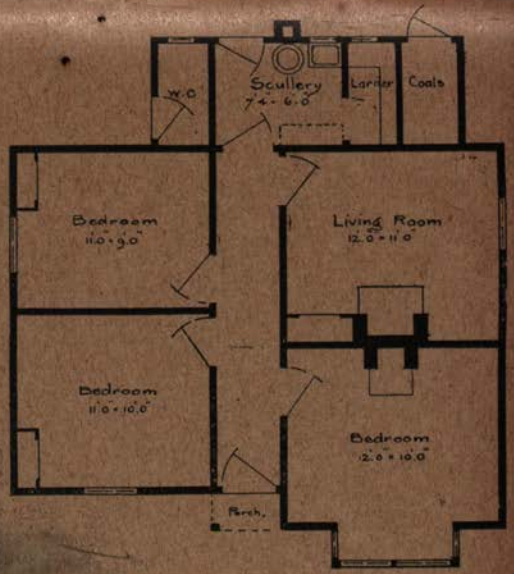


EAST ELEVATION



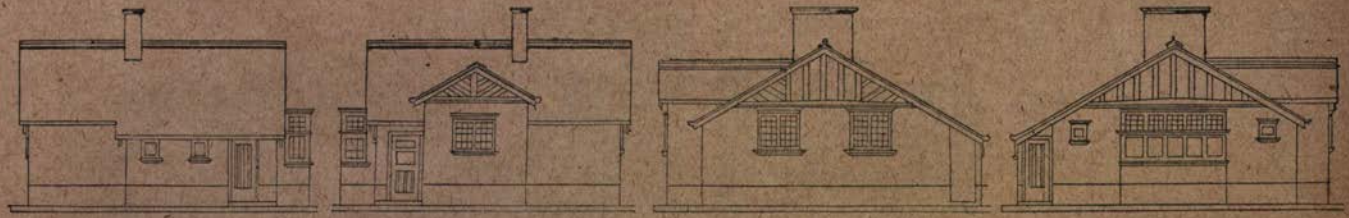
NORTH ELEVATION
—OF—
SINGLE COTTAGE

6A.—Single Cottage and Pair of Cottages by Messrs. Henman & Cooper, 20, Temple Street, Birmingham.



PLAN

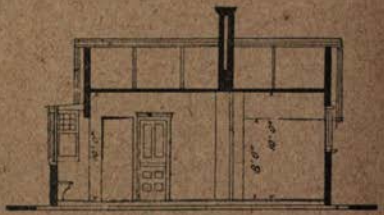
11.—Cottage by Mr. J. McManus, 237, Hammersmith Road, W.



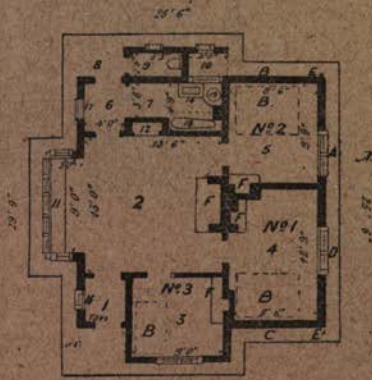
— North — — South — — East — — West —

— Elevations —

Transverse Section



Longitudinal Section



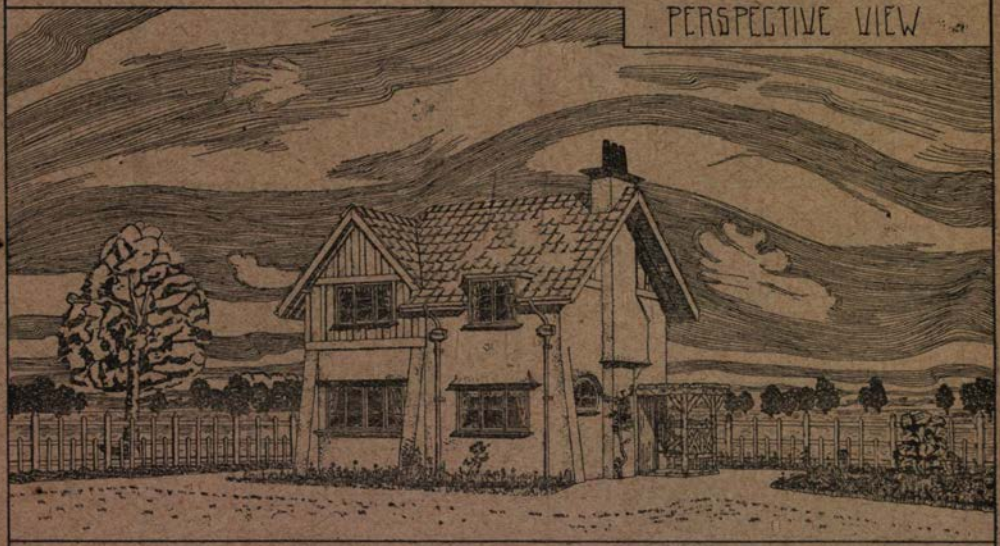
N.B. In case it should be desired to erect similar houses in pairs then if the window at A were put at the position B and the same from D to C then the wall E.E. would become a blank one and therefore able to be treated as a Party Wall

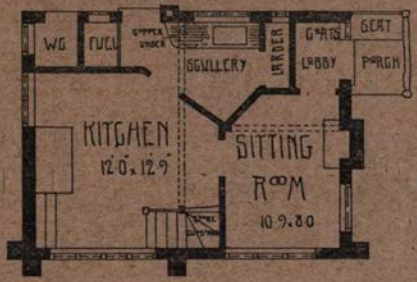
— Ground Plan —

12.—Cottage by William Scott, 27, King William Street, E.C.; Architect, Mr. C. Sydney Ingham.

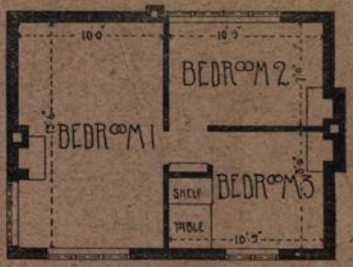
SINGLE COTTAGE LETCHWORTH GARDEN CITY ~ COST £150

PERSPECTIVE VIEW





— GROUND FLOOR PLAN —



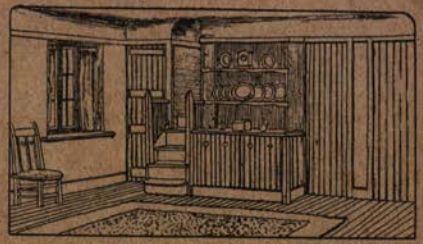
— FIRST FLOOR PLAN —

— SCALE OF FEET —

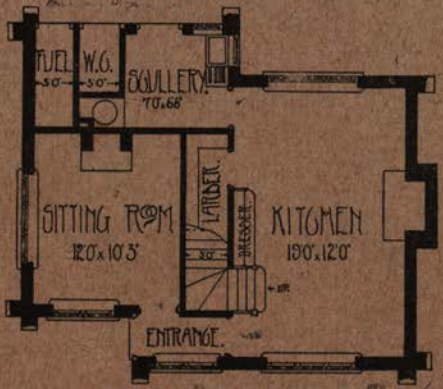
— STANLEY BARRETT AND DRIVER ARCHITECTS —
— 23 YORK PLACE —
— BAKER STREET. W. —

15.—Cottage by Messrs. Stanley Barrett and Driver.

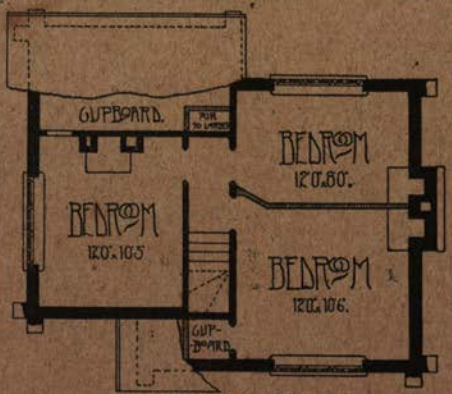
PERSPECTIVE SKETCH



—VIEW IN KITCHEN.—



—GROUND FLOOR PLAN.—



—FIRST FLOOR PLAN.—

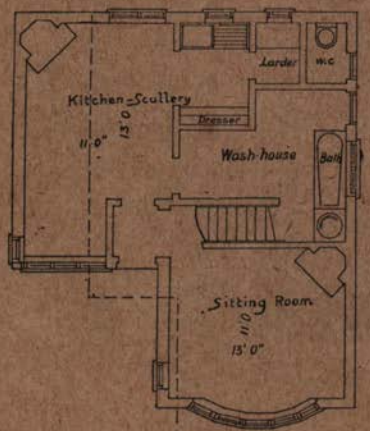
—SCALE OF FEET.—

16.—Cottage by Messrs. Stanley Barrett and Driver, 23, York Place, Baker Street, W.

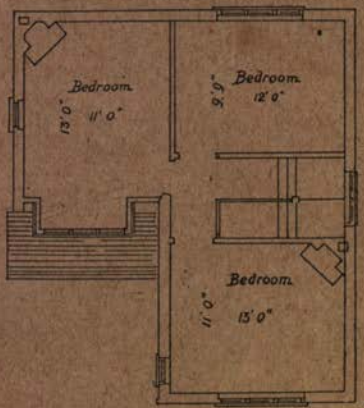
FRONT ELEVATION

BACK ELEVATION

END ELEVATION



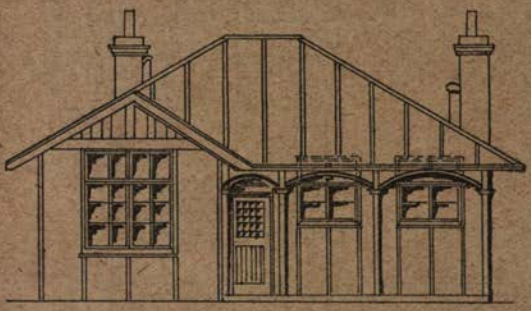
PLAN



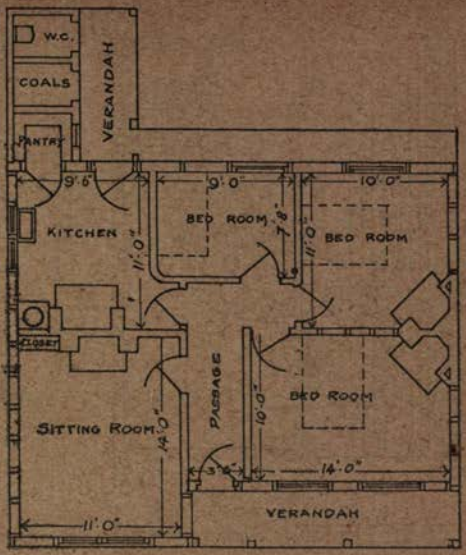
PLAN

SECTION A B

17.—Cottage by Messrs. Picton & Hope.



FRONT ELEVATION



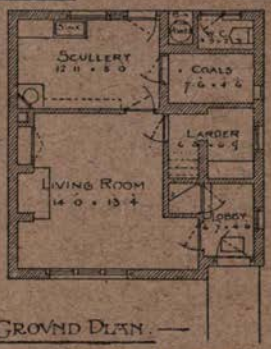
GROUND PLAN

13.—Cottage by The British Metallic Roofing and Construction Co., Eaglescliffe, Co. Durham.

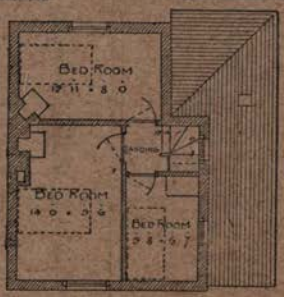
SIDE ELEVATION

FRONT ELEVATION

BACK ELEVATION



GROUND PLAN



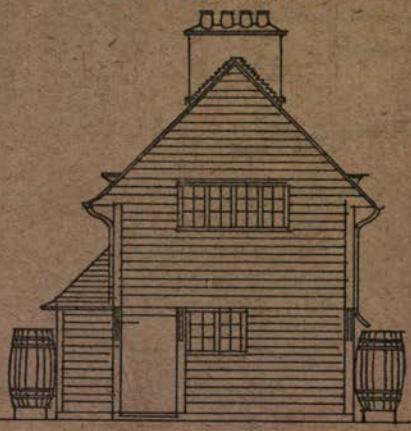
CHAMBER PLAN

18.—Cottage by Mr. William Simpkiss, Builder & Contractor, Leeds.

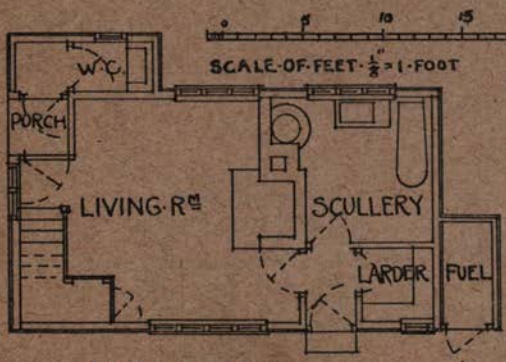
CROSS·SECTION·

·SIDE·ELEVATION·

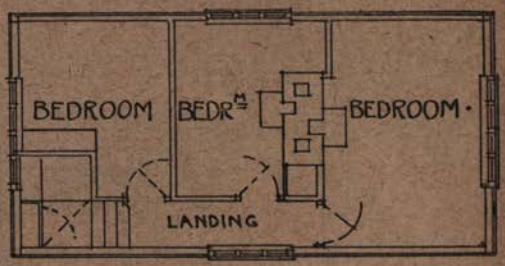
·SIDE·ELEVATION·



·ELEVATION·TO·ROAD·

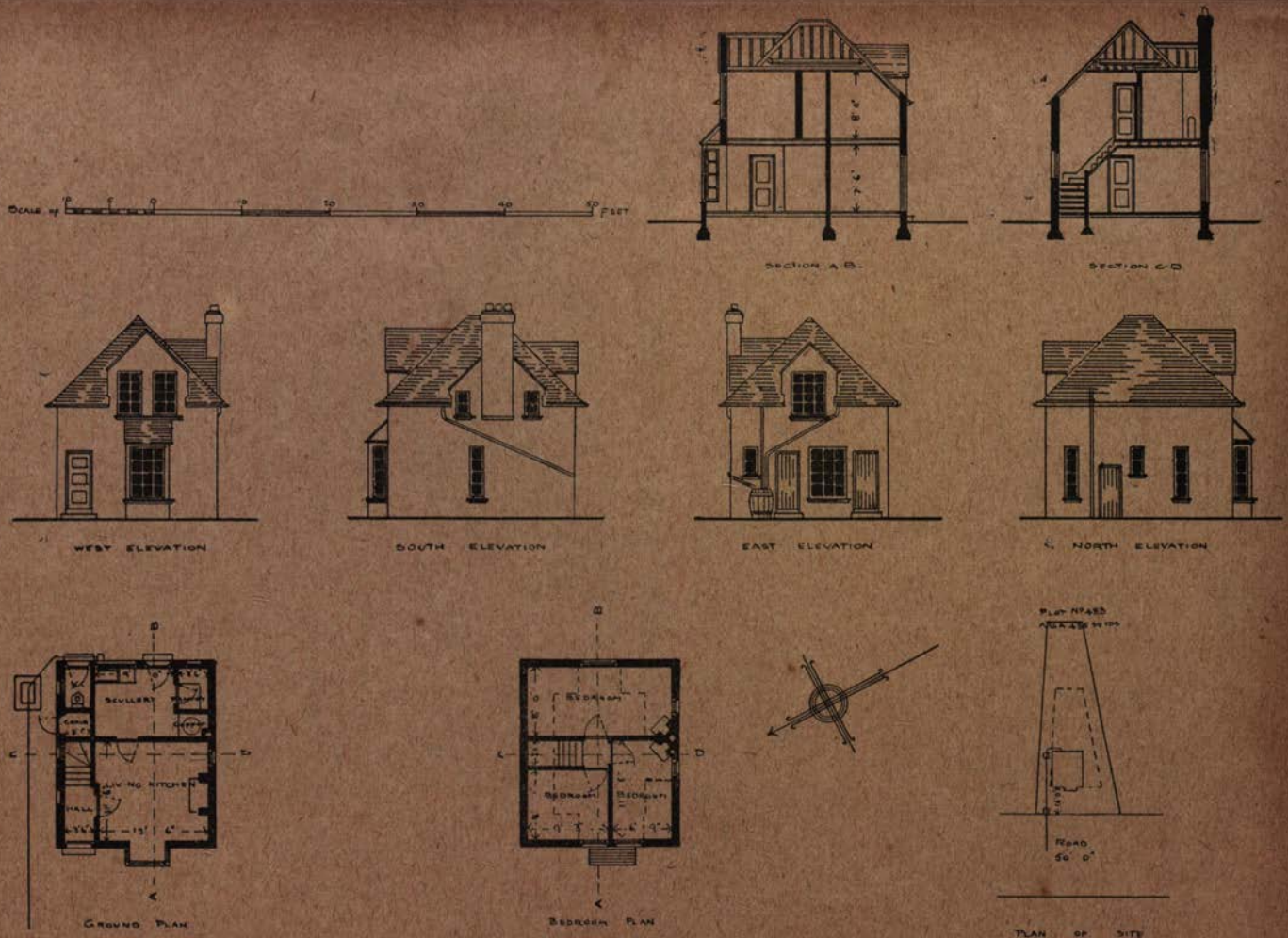


GROUND·PLAN·

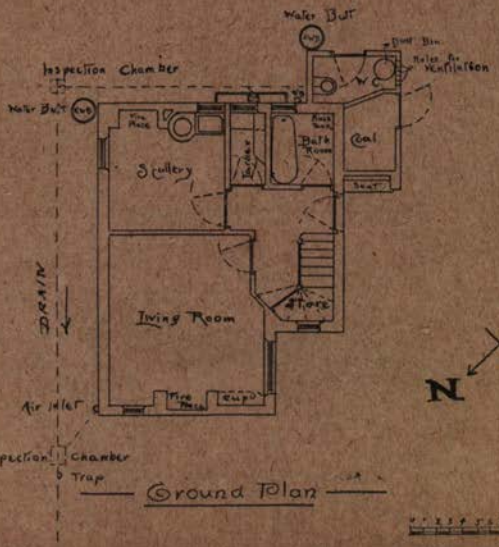


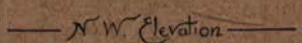
BEDROOM·PLAN·

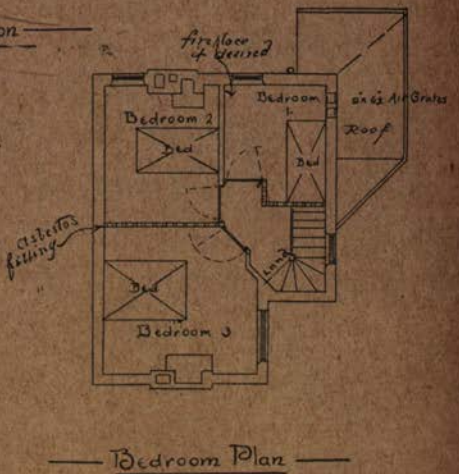
19.—Cottage by Mr. Lionel F. Crane, Architect, 13, Holland Street, Kensington, W. Builder, Mr. Frank Newton, Hitchin.

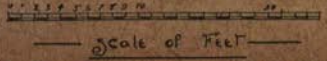


21.—Cottage by Mr. H. Cayley, A.R.I.B.A., Bank Chambers, Rothwell, Kettering.

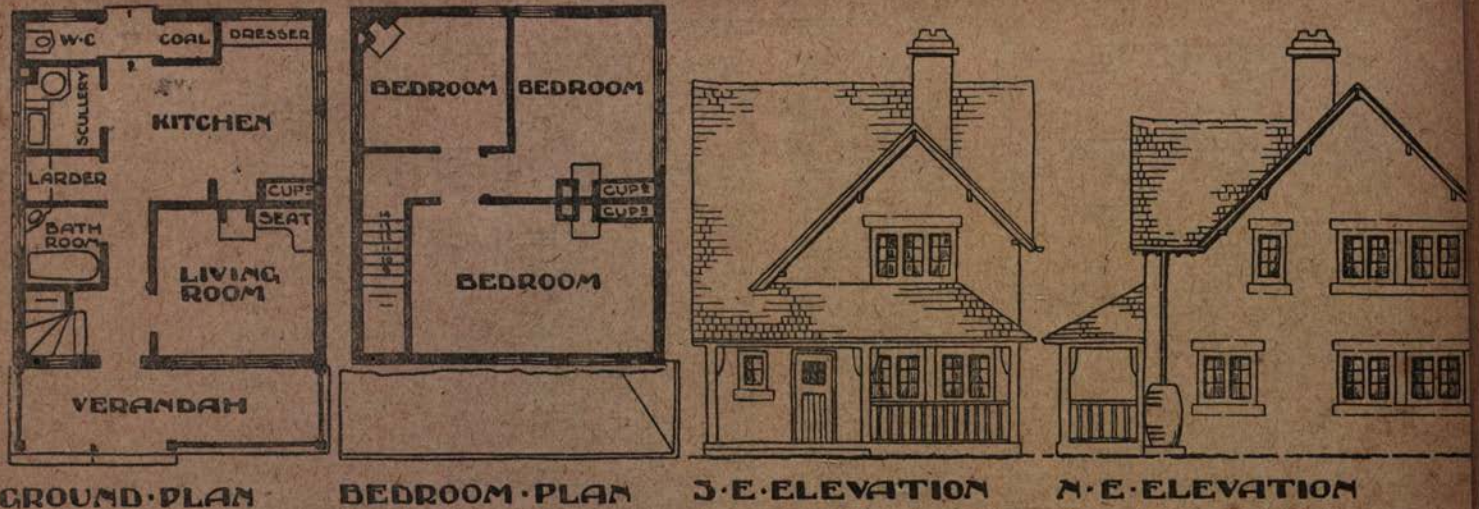




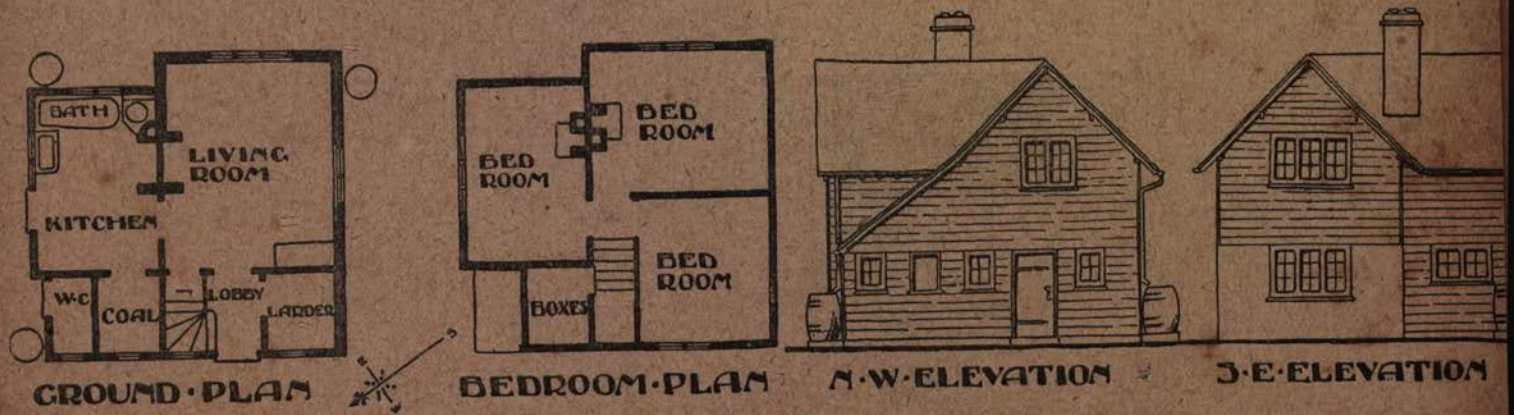




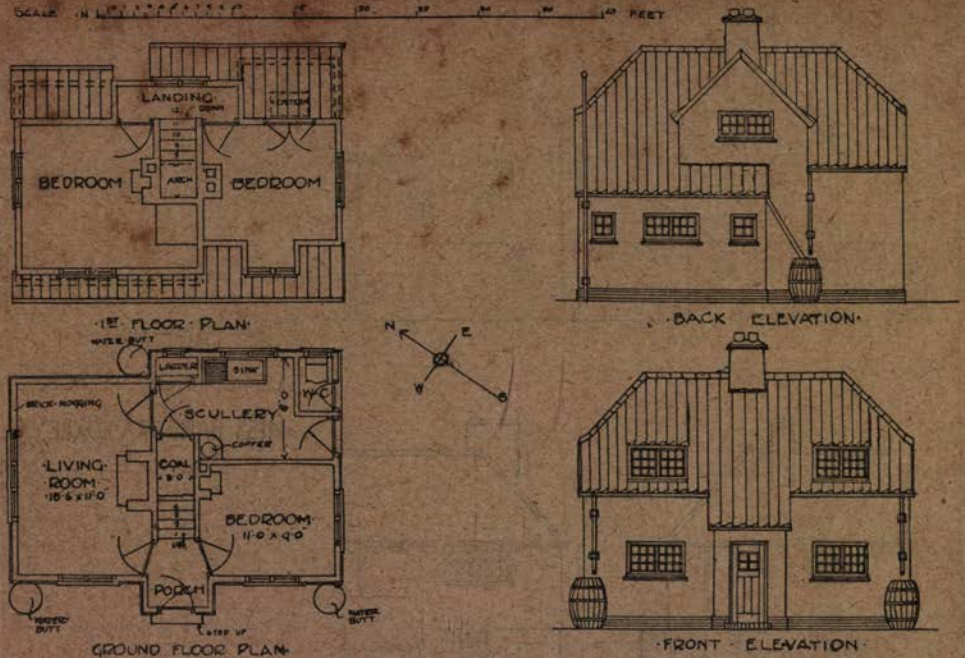
22.—Cottage by Mr. R. Whitbread, Carlton, Nottingham.



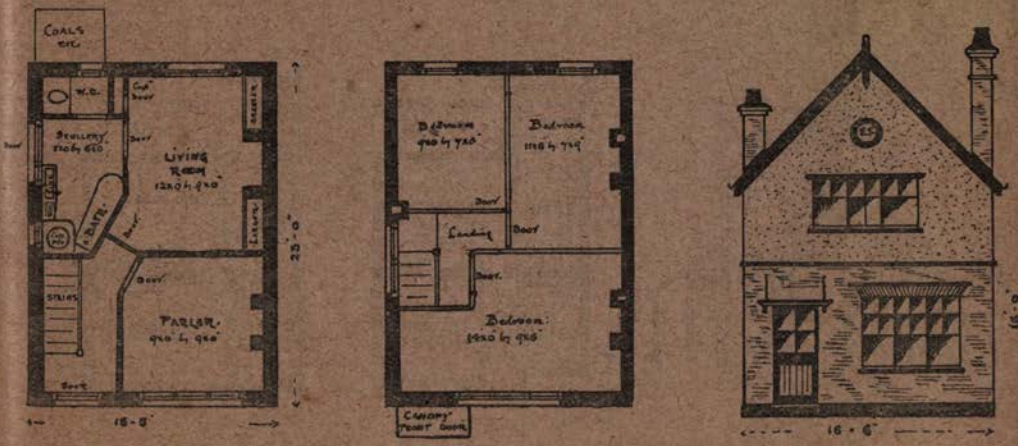
23.—Cottage by the Cement Products Company. Architects, Messrs Bennett & Bidwell, Letchworth.



23.—Cottage by Messrs. Bennett & Bidwell, Architects, Letchworth.

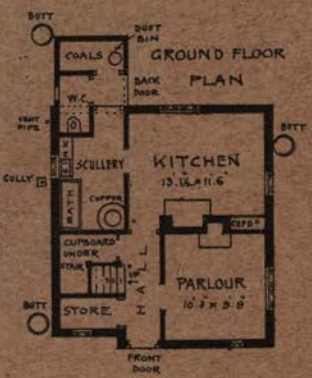


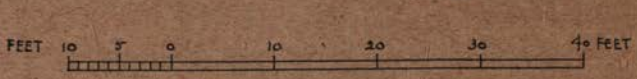
25.—Cottage by Mr. Harry Prince, Architect, 15, Clifford's Inn, Fleet Street, E.C.



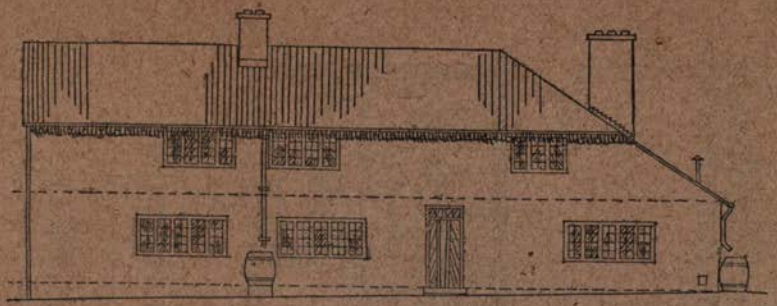
26.—Cottage by the Ealing Tenants, Ltd., Woodfield Road, Pitshanger, Ealing.

COTTAGE AT
LETCHWORTH FOR
MISS BARBARA FOXLEY.

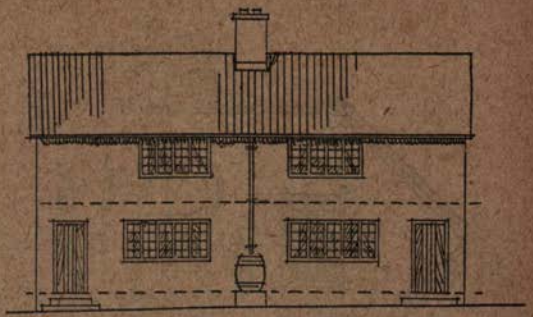




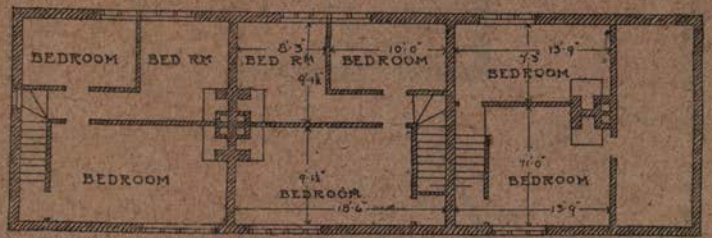
27.—Cottage by Mr. Allen Foxley, P.A., Architect, 5, Victoria Street, S.W.



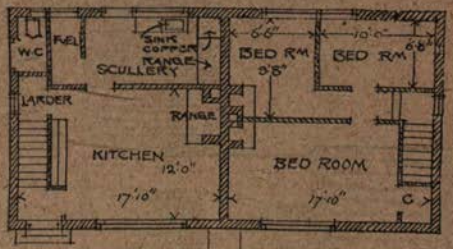
FRONT ELEVATION



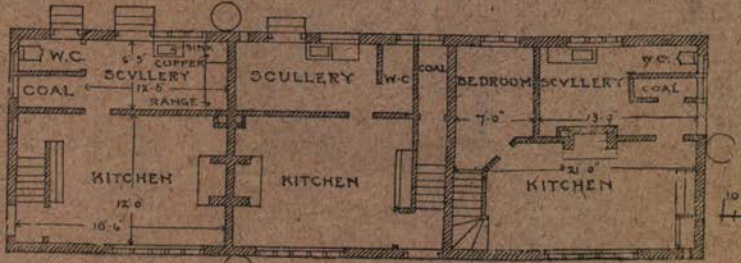
FRONT ELEVATION



FIRST FLOOR PLAN



GROUND PLAN FIRST FLOOR PLAN



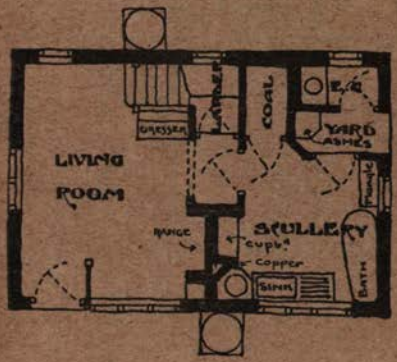
GROUND FLOOR PLAN.

31.—Three Cottages for Mr. Ivor Tuckett by Mr. Curtis Green, Architect.

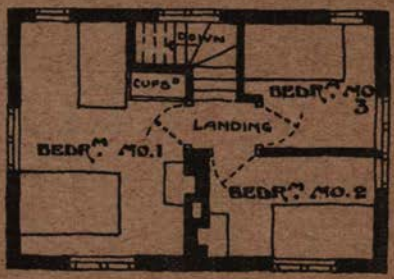
S. ELEVATION.

E. ELEVATION.

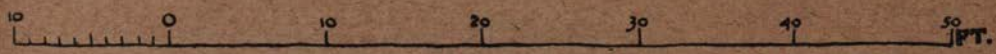
SINGLE · COTTAGE · BY· C · GUSTAVE · AGATE · ARCHITECT:
14 · JOHN · DALTON · ST · MANCHESTER



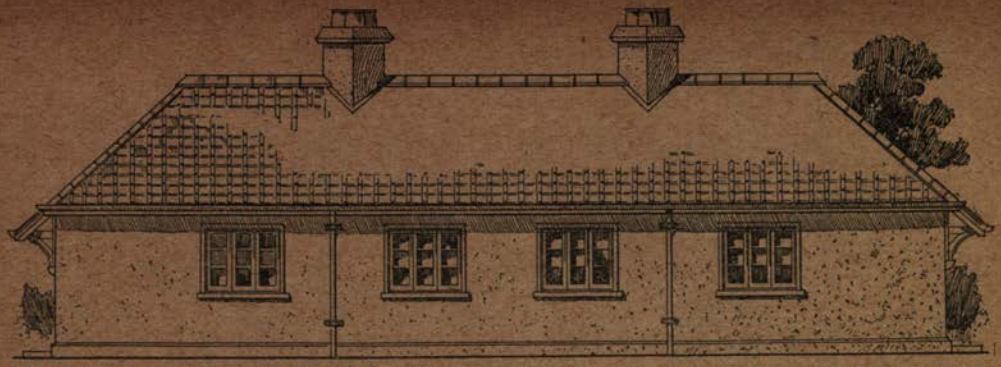
GROUND PLAN

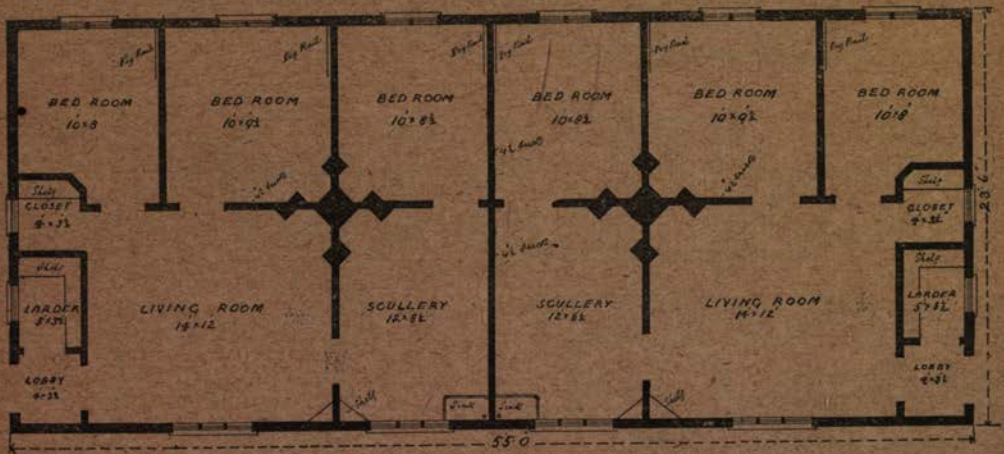


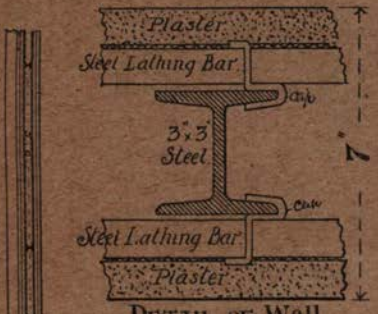
BEDROOM PLAN



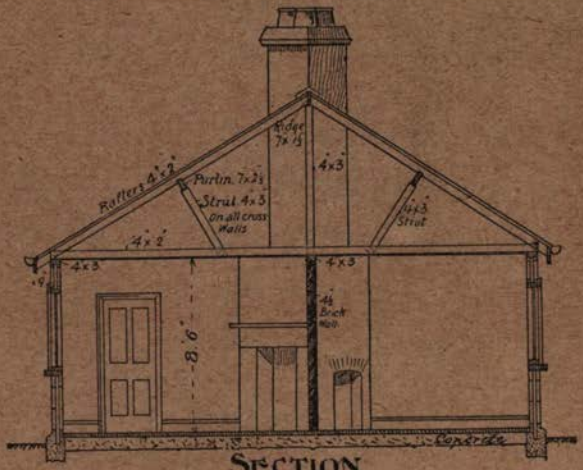
34.—Cottage by Mr. C. Gustave Agate, 14, John Dalton Street, Manchester.







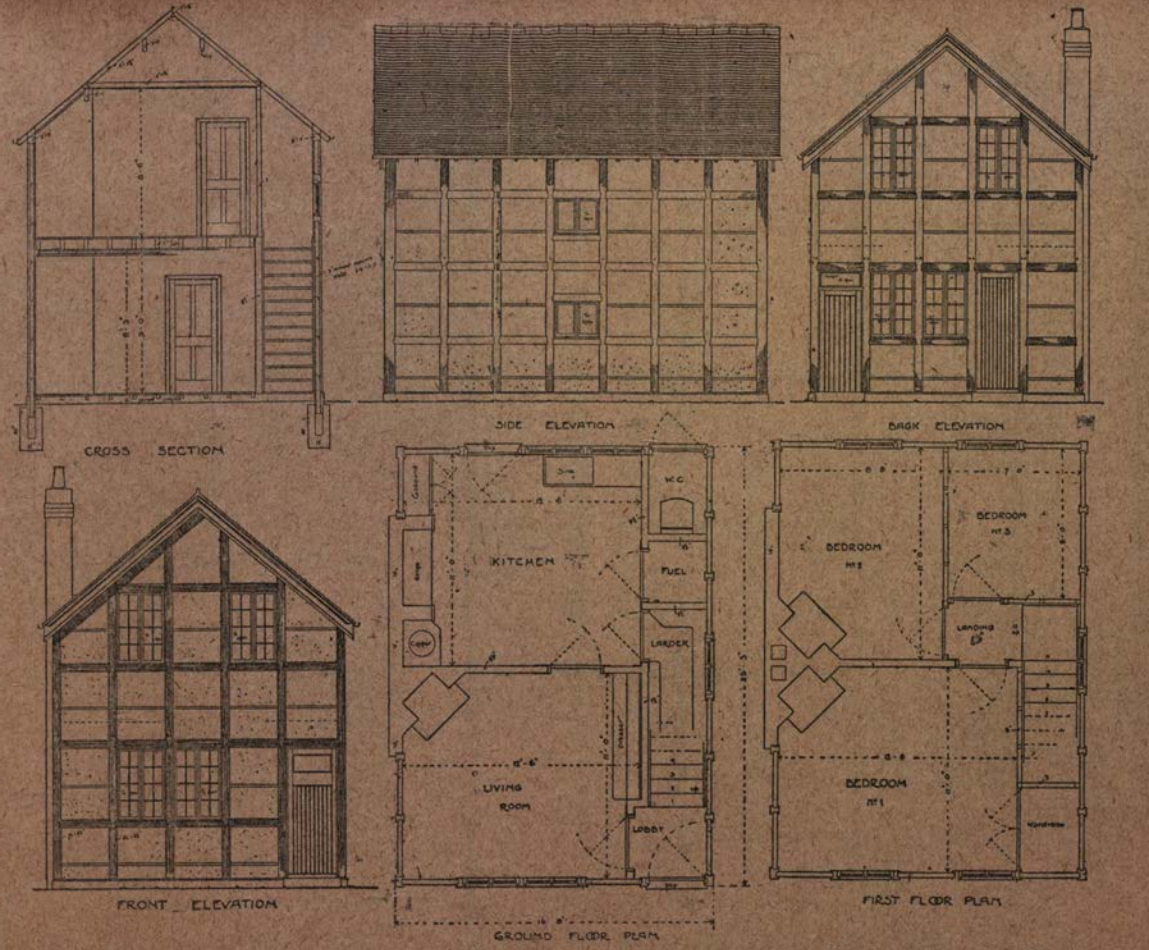
DETAIL OF WALL.
FIG 2



SECTION.

PLAN.

35.—Pair of Cottages by Messrs. Potter & Co., Queen Victoria Street, S.W.



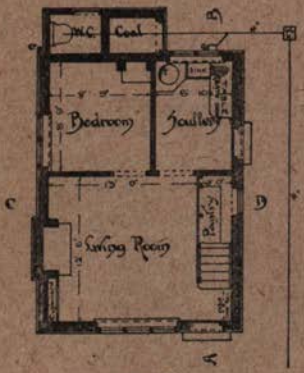
36.—Cottage by Messrs. W. Gradwell & Co., Barrow-in-Furness. Architect, Mr. W. Moss Settle, A.R.I.B.A. Barrow-in-Furness.

South Elevation

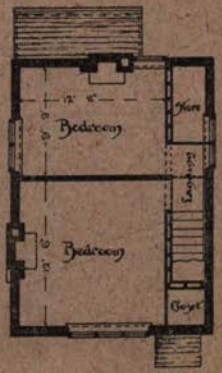
North Elevation

East Elevation

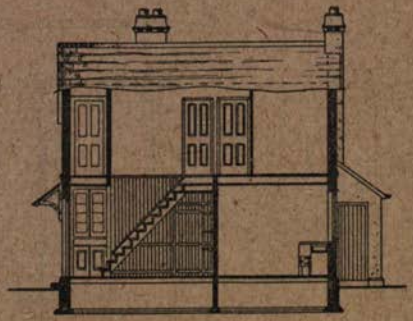
West Elevation



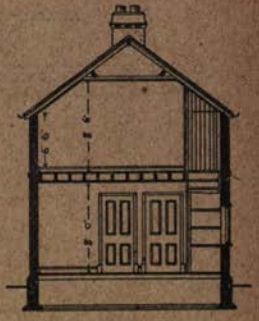
Ground Floor Plan



First Floor Plan



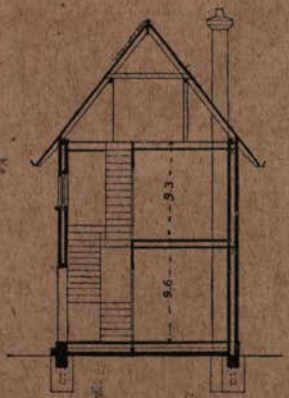
Section A–B



Section C–D

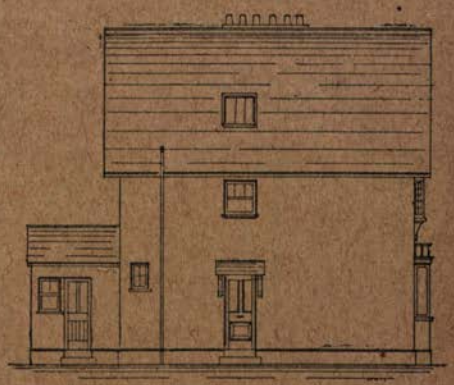
37.—Cottage by Messrs. Harrison & Hattrell, Architects, 3, Welford Road, Leicester.

FRONT ELEVATION

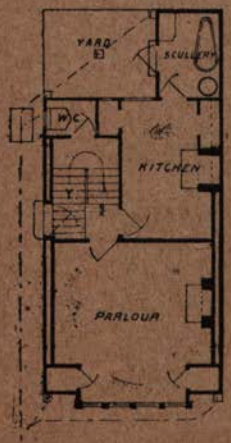


SECTION

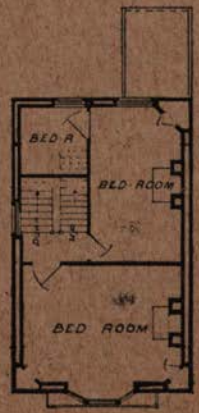
BACK ELEVATION



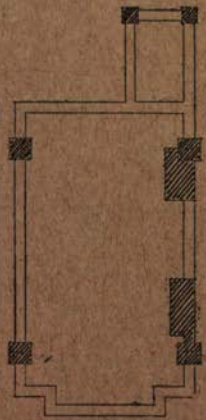
SIDE ELEVATION



GROUND PLAN



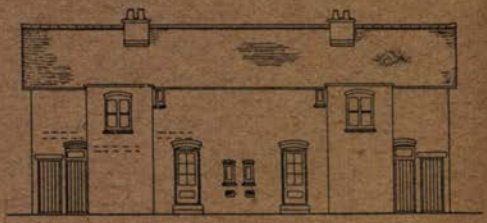
FIRST FLOOR PLAN



PLAN OF FOUNDATIONS.

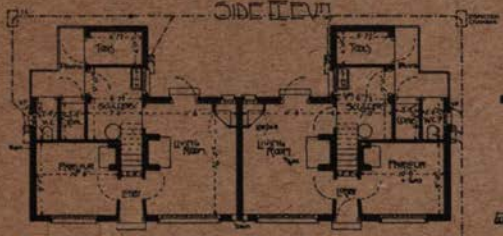
40.—Cottage by the Fireproof-Partition and Spandrel Wall Company, 92, Tooley Street, London Bridge, S.E.

FRONT ELEVATION.

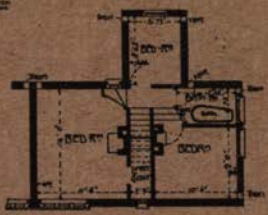


BACK ELEVATION.

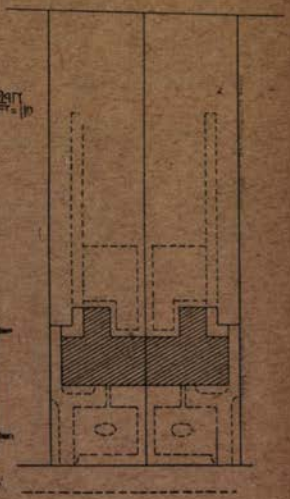
SIDE ELEVATION



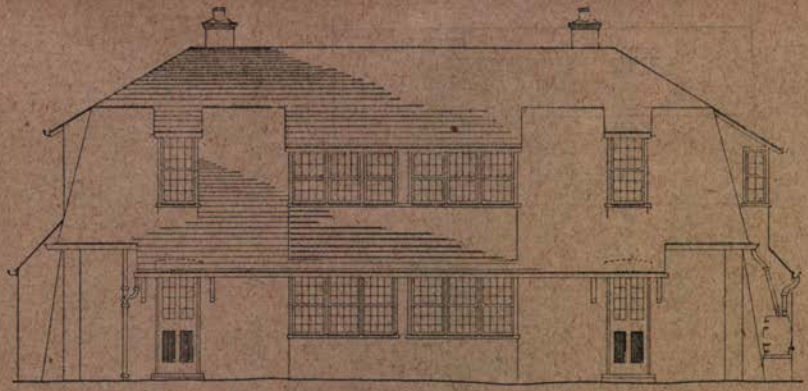
GROUND PLAN



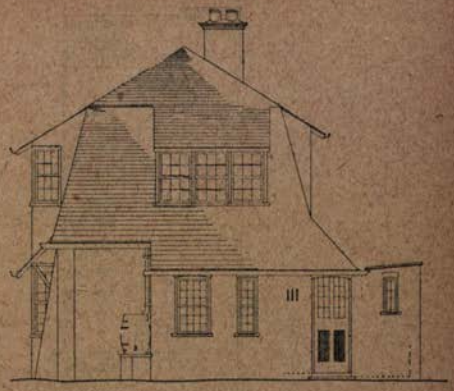
FIRST FLOOR PLAN



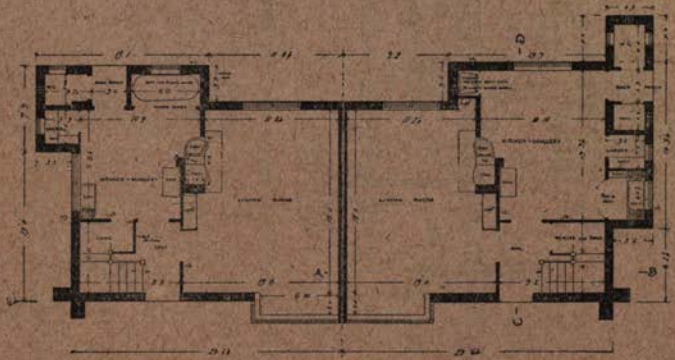
41-42.—Pair of Cottages for the Bournville Village Trust. Architect, Mr. H. Bedford Taylor, Bournville.



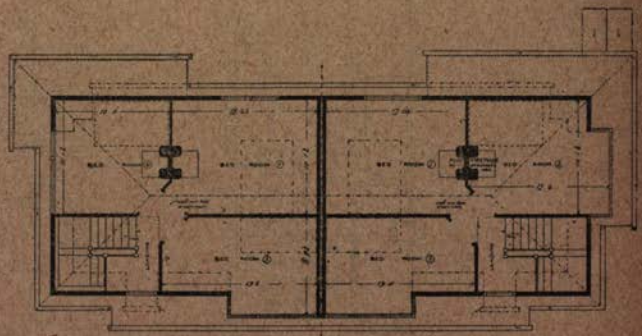
South Elevation



East Elevation

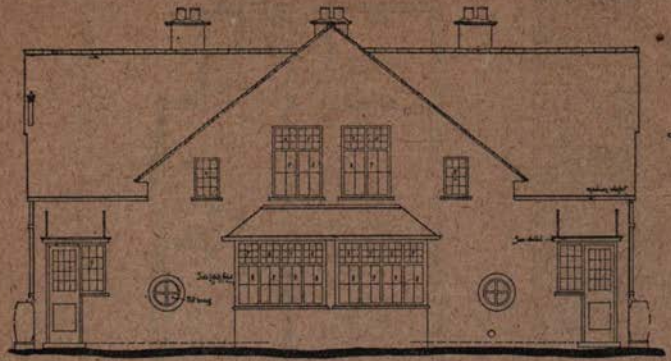


Ground Plans

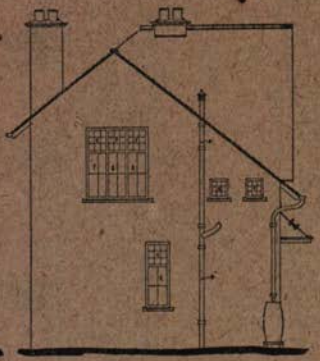


First Floor Plans

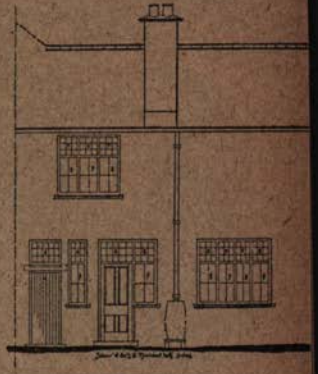
43.—Pair of Cottages for Letchworth Building Syndicate by Mr. V. Dunkerley, Architect, 8, Frederick \Place, Old Jewry, E.C.



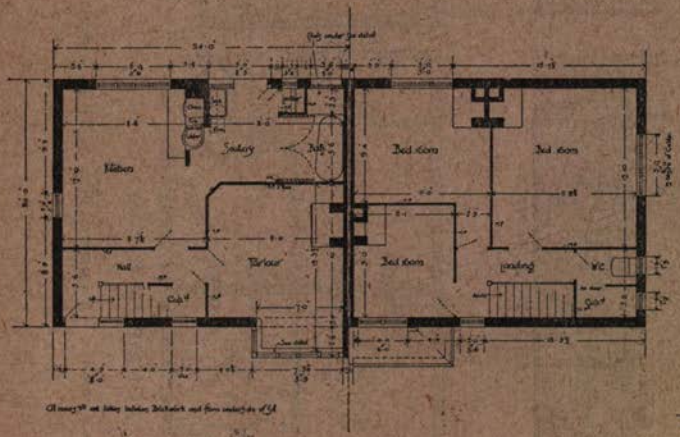
Front Elevations



Side Elevation

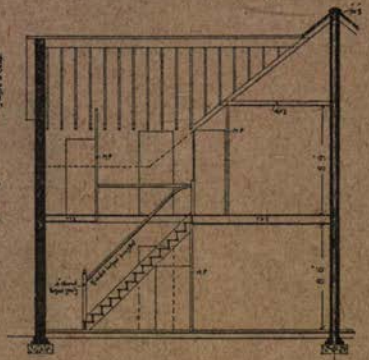


Back Elevation

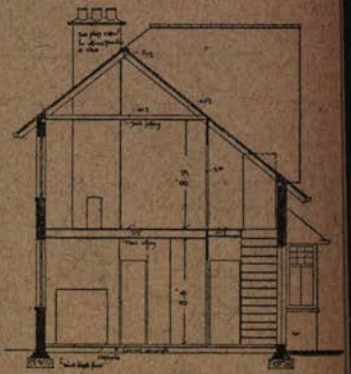


Ground Floor Plan

First Floor Plan



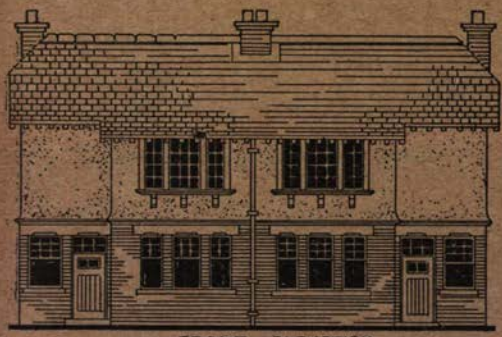
Section



Section

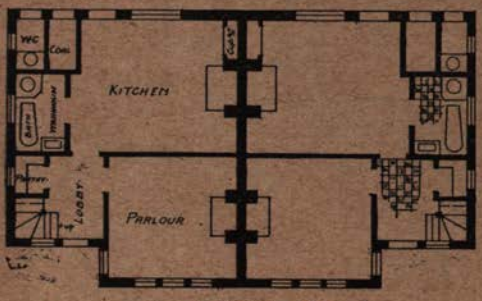
44.—Pair of Cottages for the Asbestic Brick and Tile Company, Lodge Place, Grove Road, St. John's Wood, N.W. Mr. V. Dunkerley Architect.

SIDE ELEVATION

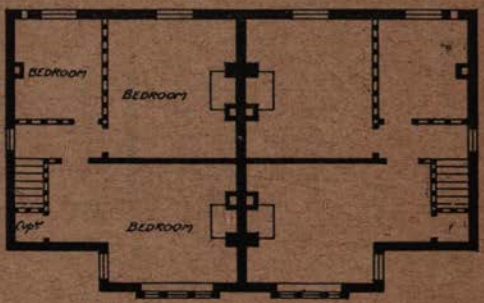


FRONT ELEVATION

BACK ELEVATION

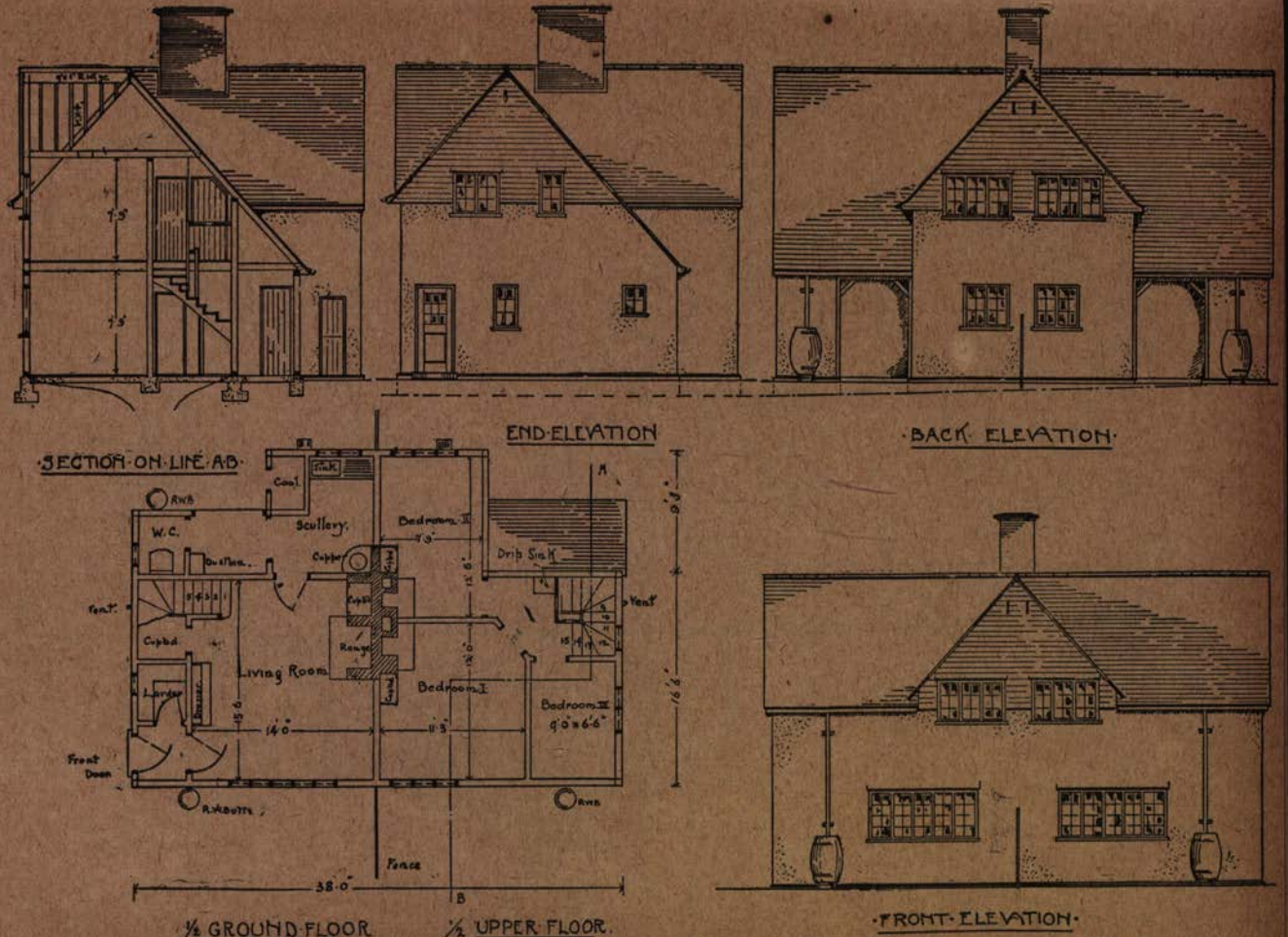


GROUND FLOOR PLAN

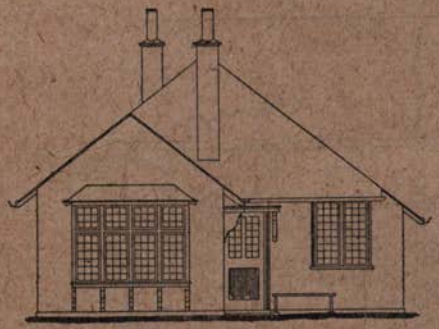


FIRST FLOOR PLAN

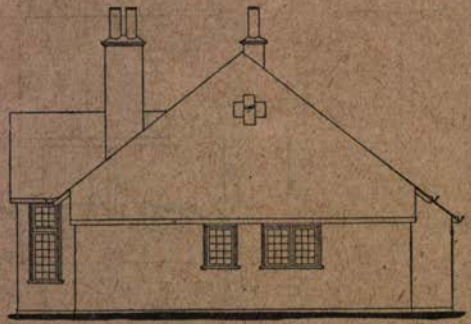
45.—Pair of Cottages. Architect, Mr. A. T. Martindale, Bridlington; Builder, Mr. T. V. Martindale.



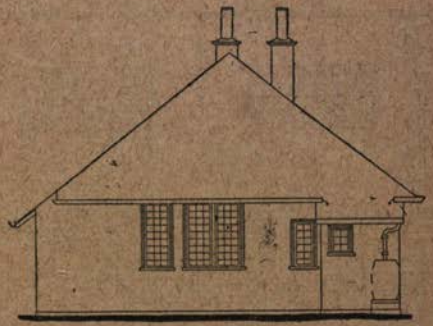
47.—Single Cottage and Pair of Cottages for the New Expanded Metal Co., York Mansions, York Street, Westminster, S.W. Architects, Messrs. J. Oldrid, Scott & Son, 2, Dean's Yard, Westminster.



SOUTH ELEVATION



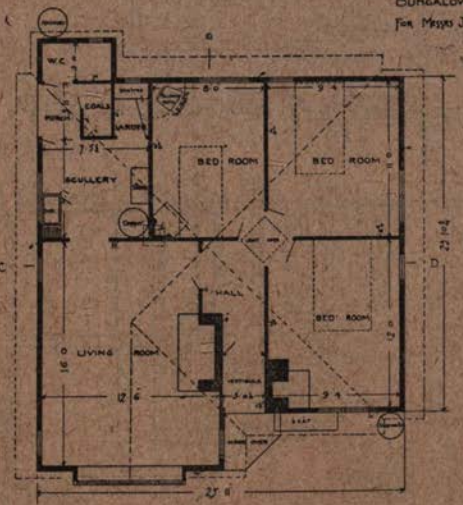
EAST ELEVATION



NORTH ELEVATION

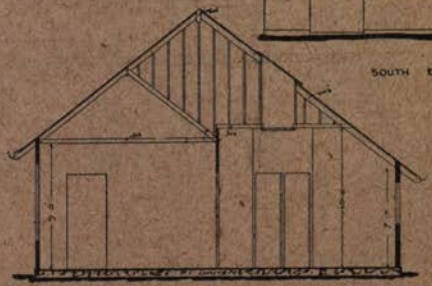
FORTE 4TH CHEAP COTTAGES EXHIBITION LETCHWORTH
"BUNGALOW" BUILT OF "MACK" PARTITION SLABS
FOR MESSRS J.A. KING & CO
OF 188 QUEEN VICTORIA STREET E.C.

V. DUNKERLEY
ARCHITECT
LUTTERWORTH

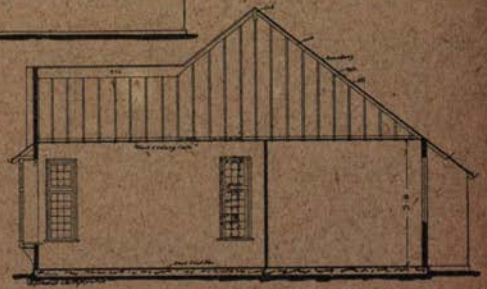


PLAN.

SOUTH ELEVATION

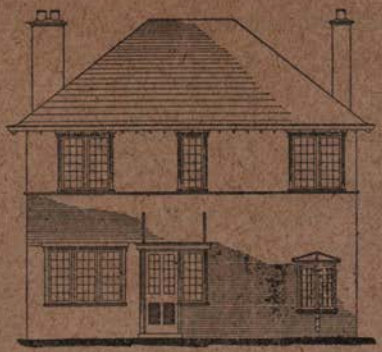


SECTION C/D

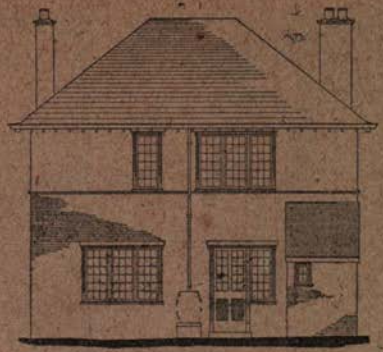


SECTION A/B

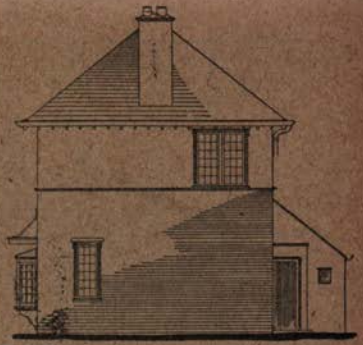
48A.—"MACK" PARTITION SLAB COTTAGE BUILT FOR MESSRS. KING & CO. ARCHITECT, MR. V. DUNKERLEY.



Front Elevation

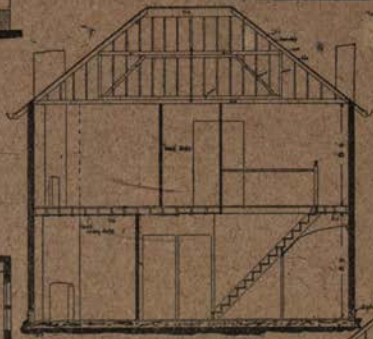


Back Elevation

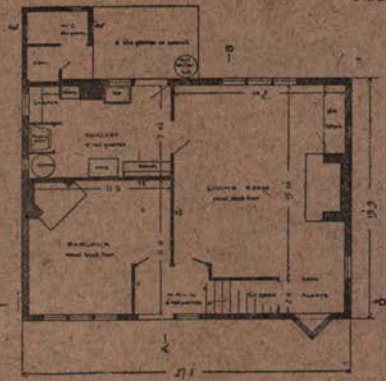


End Elevation

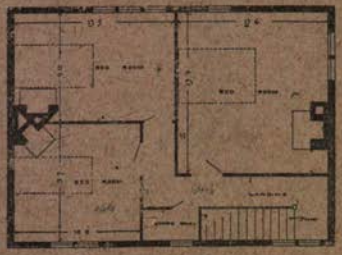
Post 47th Cheap Cottages Exhibition Letchworth
Detached House Built of Mack Partition Slabs
For Messrs J A King & Co
at 18 Queen Victoria Street E.C.



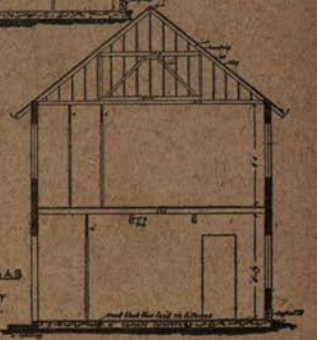
Section C.D



Ground Floor Plan.



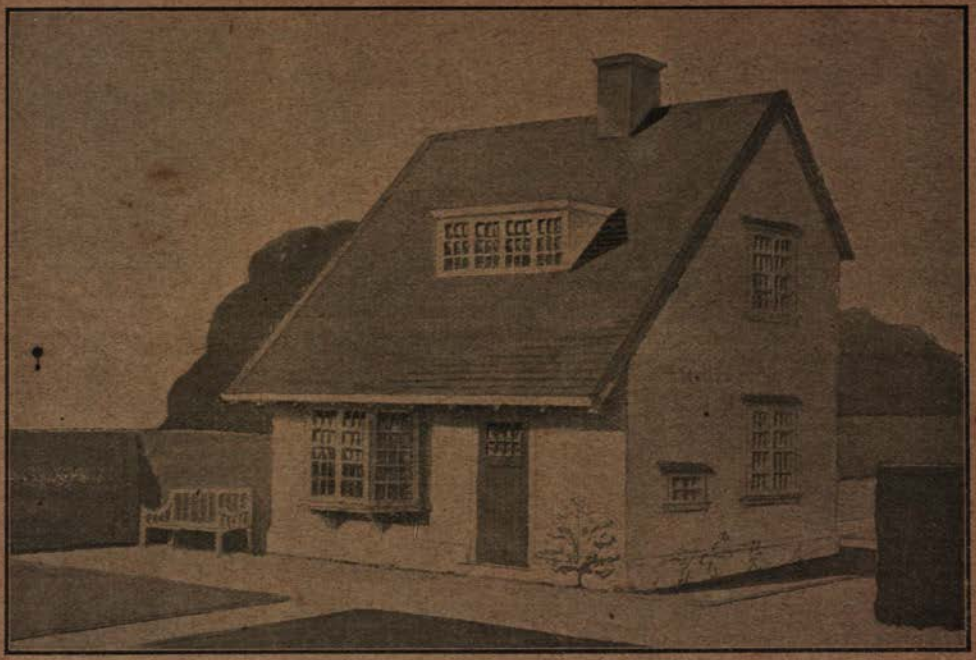
First Floor Plan

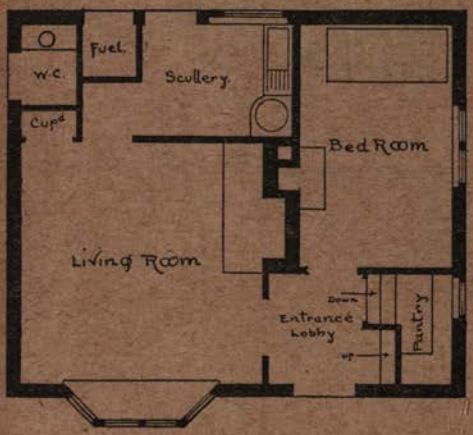


Section A.B

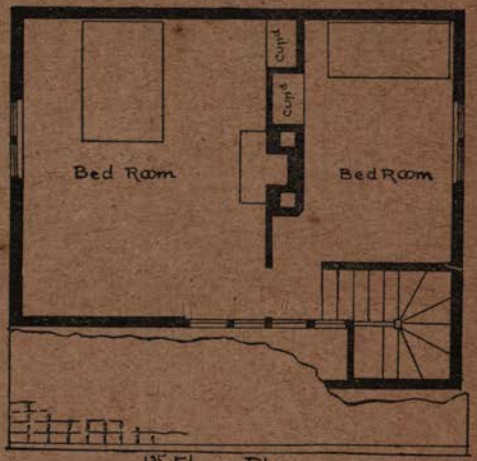
Scale 1/4 Feet = One Inch

48B.—"Mack" Partition Slab Cottage Built for Messrs. King & Co. Architect, Mr. V. Dunkerley.



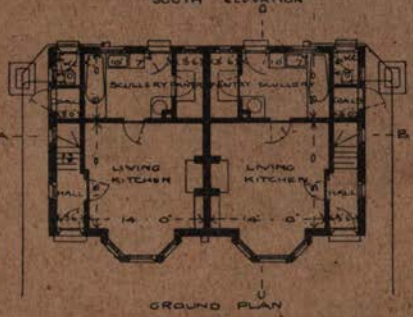


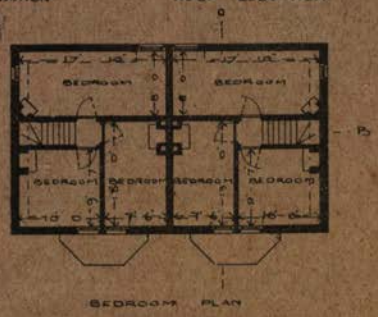
Ground Floor Plan

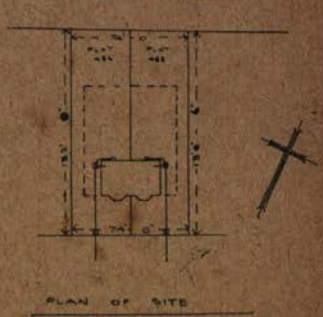


1st Floor Plan

50.—Cottage by Messrs. Faker & May, 24, Liverpool Street, E.C.

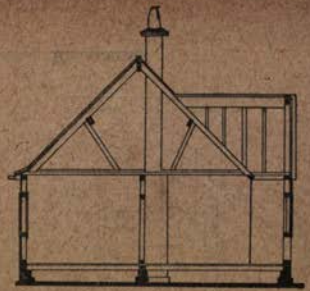




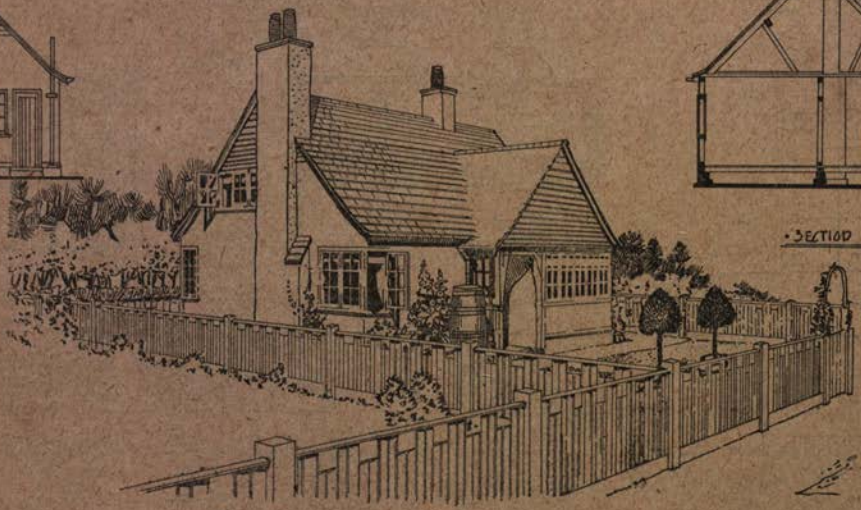


51–52.—Pair of Cottages by Mr. H. Cayley, A.R.I.B.A., Bank Chambers, Rothwell, Kettering.

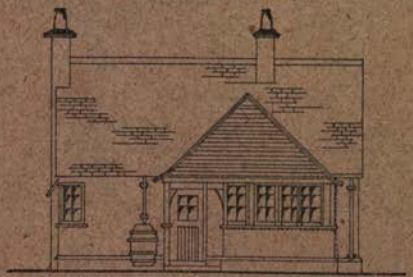
• EAST ELEVATION •



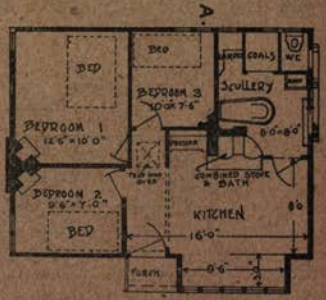
• SECTION A.B. •



• WEST ELEVATION •



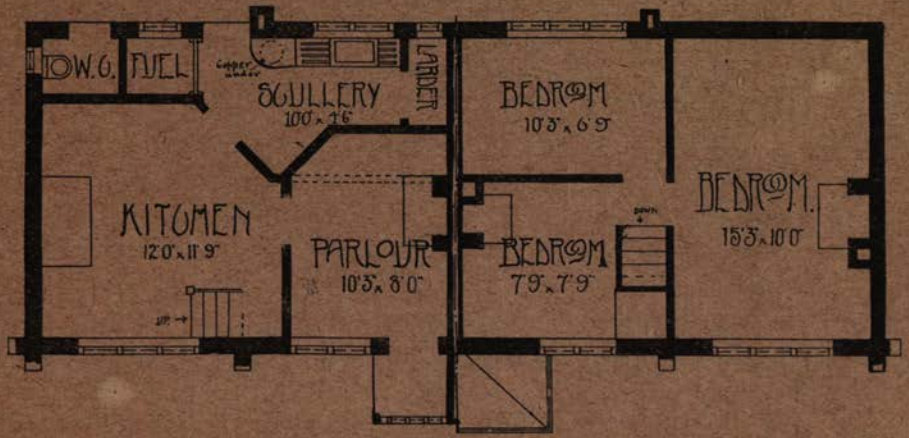
• SOUTH ELEVATION •



• GROUND PLAN •

53.—Cottage by the British Uralite Company, 50, Cannon Street, E.C.

TWO COTTAGES LETCHWORTH GARDEN CITY—COST £150 EACH

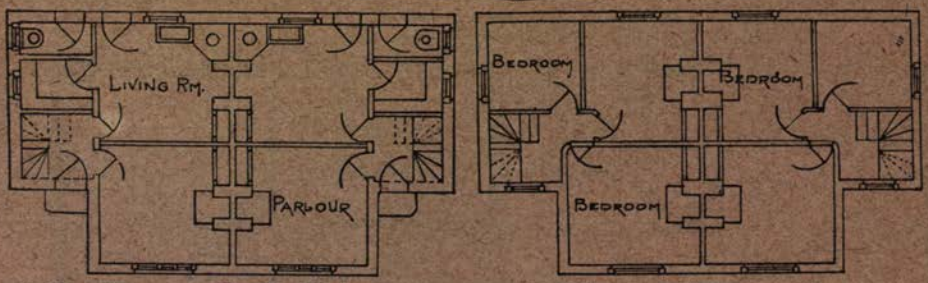


— GROUND FLOOR PLAN. — — FIRST FLOOR PLAN —

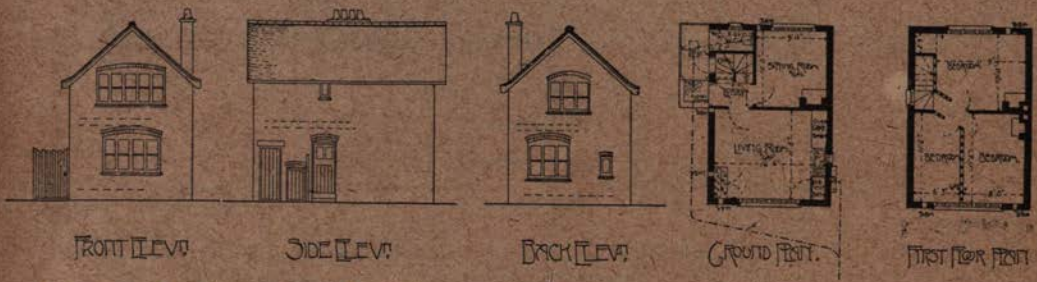
— SCALE OF FEET —

— STANLEY BARRETT & DRIVER ARCHITECTS —
— 23 YORK PLACE —
— BAKER STREET. W. —

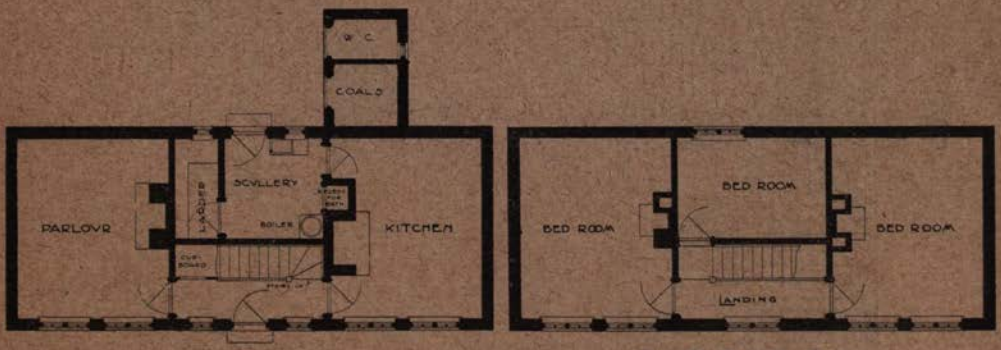
54.—Two Cottages by Messrs. Stanley Barrett and Driver.



56–57.—Cottage by Mr. W. W. Judges, Architect and Surveyor, Broughton, Faversham.



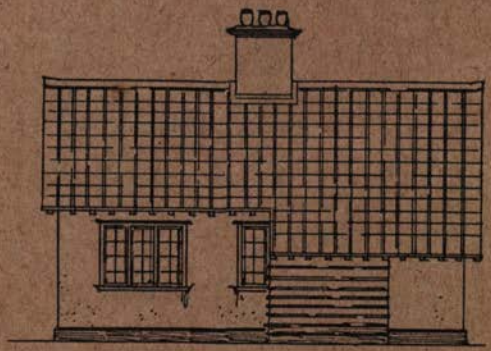
20.—Single Cottage for the Bournville Village Trust. Architect, Mr. H. Bedford Taylor, Bournville. (*Too late for classification*).



GROUND FLOOR PLAN

FIRST FLOOR PLAN

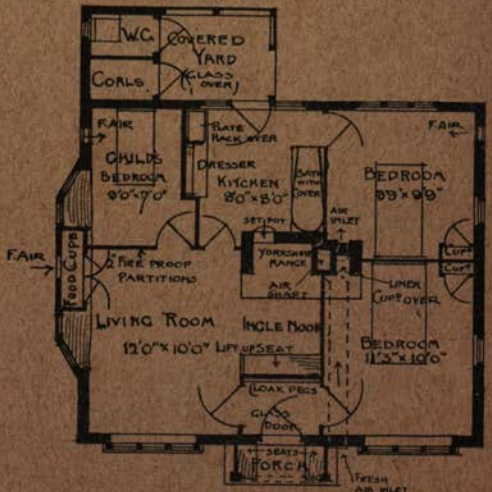
58.—Cottage built of Concrete Blocks by the Concrete Machinery Company, Limited, 18, Water Street, Liverpool. Architect, Mr. Gilbert Fraser, A.R.I.B.A., 67, Lord Street, Liverpool.



BACK ELEVATION

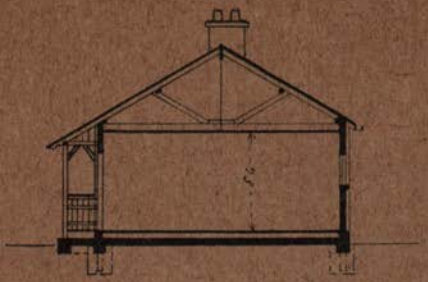
FRONT ELEVATION

SIDE ELEVATION

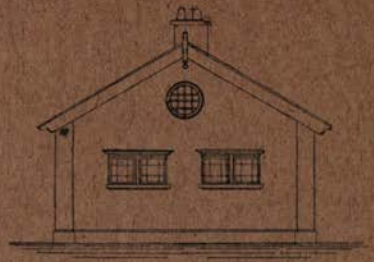


PLAN

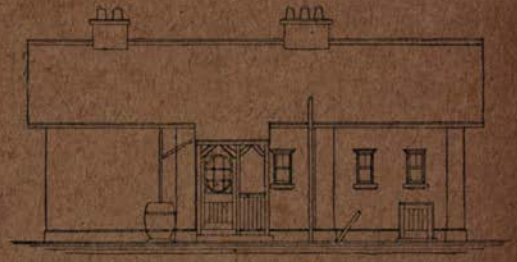
59.—Cottage by Messrs. Clabe & Ross, 1, West Street Finsbury, E.C.



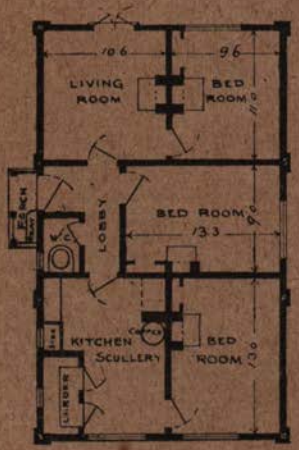
SECTION



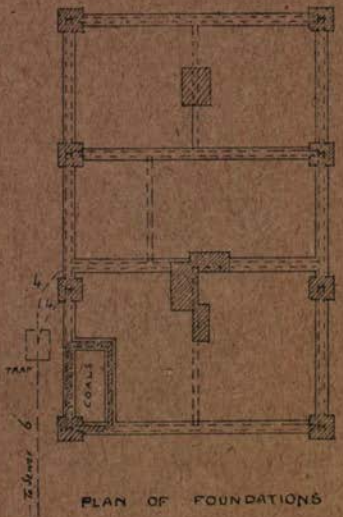
FRONT & BACK ELEVATIONS



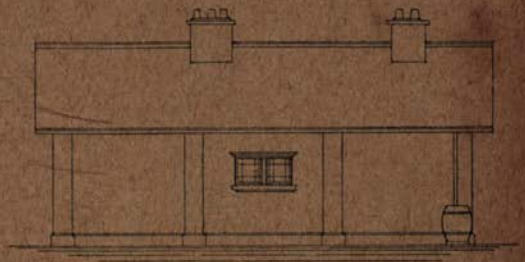
EAST ELEVATION



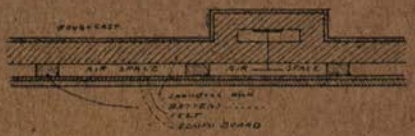
GROUND FLOOR PLAN



PLAN OF FOUNDATIONS



WEST ELEVATION

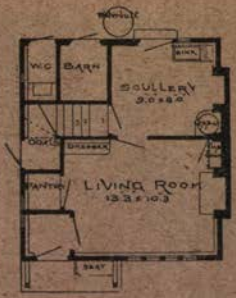


60.—Cottage by the Fireproof-Partition and Spandrel Wall Company, 92, Tooley Street, London Bridge, S.E.

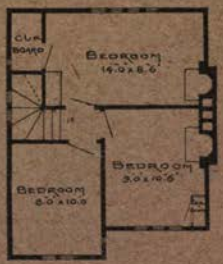
FRONT ELEVATION

SIDE ELEVATION

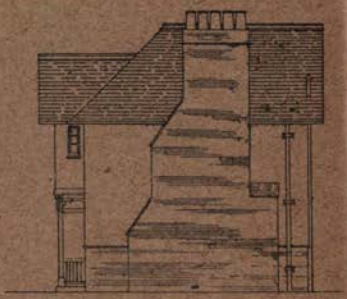
BACK ELEVATION



GROUND PLAN



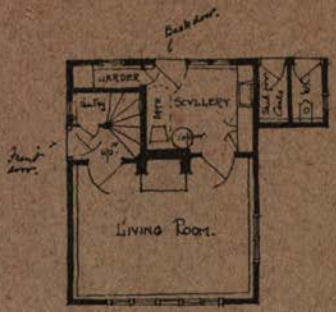
CHAMBER PLAN



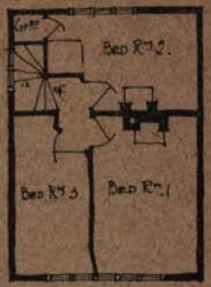
SIDE ELEVATION

SCALE OF FEET 1 10 20 30 40 50

61.—Cottage by Mr. W. Tapsell Allen, F.R.I.B.A., Stevenage, Herts. Messrs. Shrouder and Matthews, Builders.

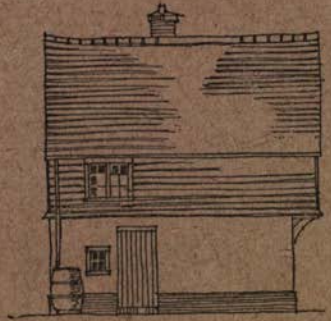


GROUND PLAN.



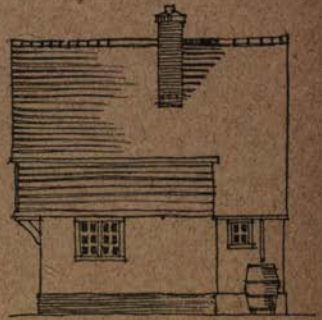
FIRST FLOOR PLAN

BACK ELEVATION.



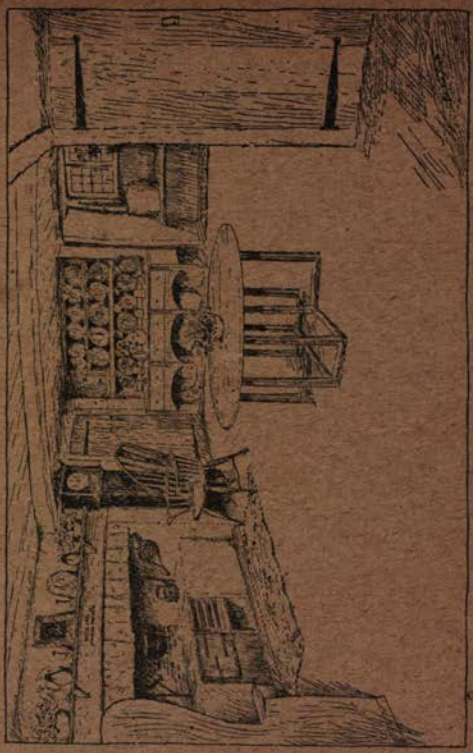
SIDE ELEVATION.

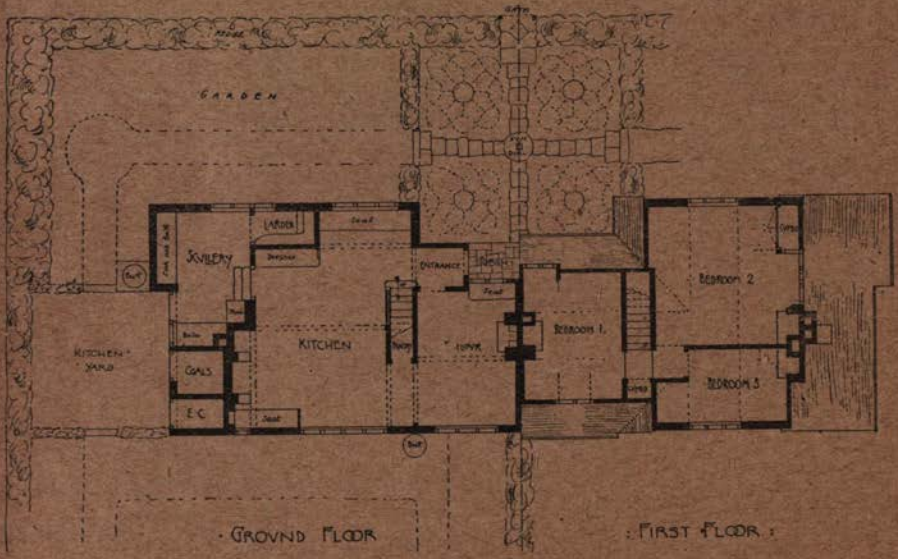
FRONT ELEVATION.



SIDE ELEVATION.

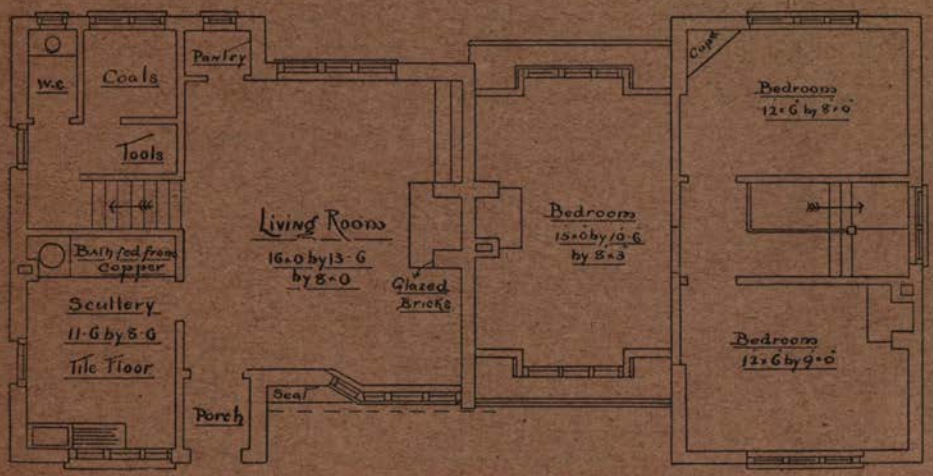
62.—COTTAGE BY MR. OSWALD P. MILNE, ARCHITECT, 77, CHANCERY LANE, W.C.





65.—Architect, Mr. M. H. Baillie Scott, Fenlake Manor, Bedford.

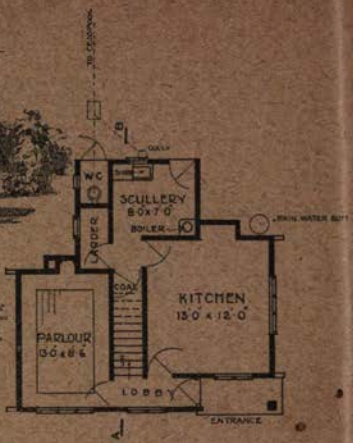
ELEVATION



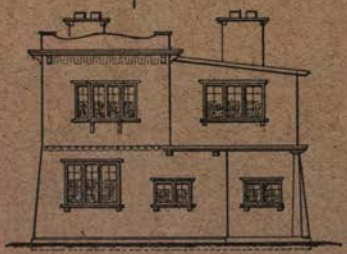
GROUND FLOOR.

FIRST FLOOR.

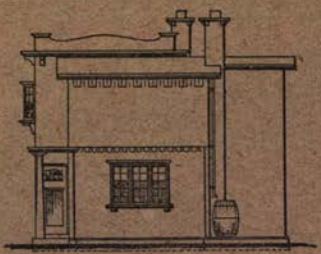
67-68.—Two Cottages by the Co-partnership Housing Council, 22, Red Lion Square, W.C.



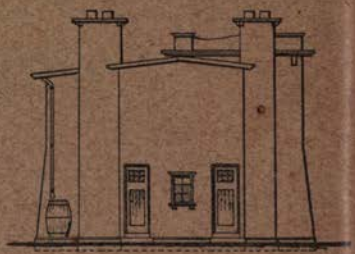
GROUND · FLOOR · PLAN ·



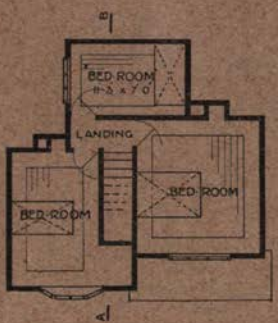
SOUTH · ELEVATION



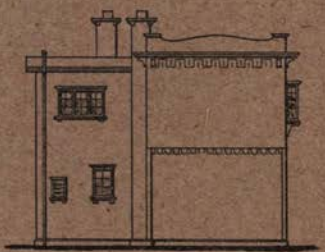
EAST · ELEVATION



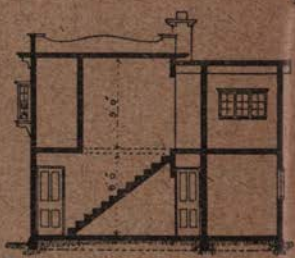
NORTH · ELEVATION



FIRST · FLOOR · PLAN ·

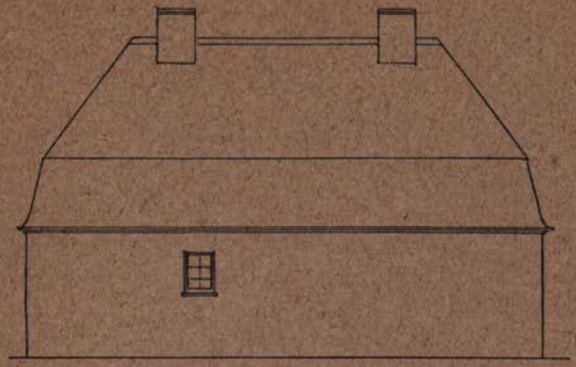


WEST · ELEVATION



SECTION · A·B

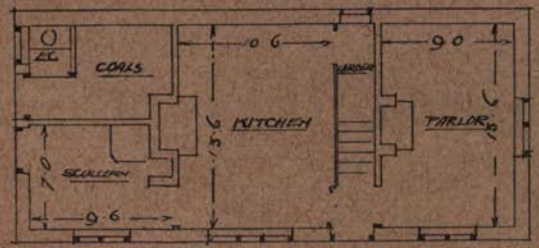
69A.—Cottage by Mr. John A. Brodie, M.Inst.C.E., City Engineer, Liverpool.



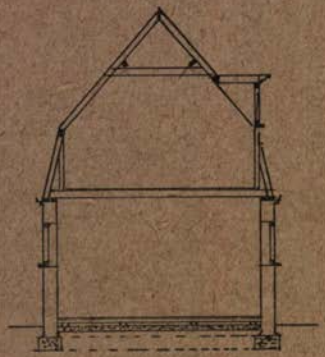
NORTH ELEVATION.

END

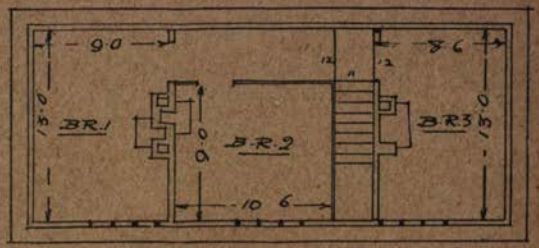
SOUTH ELEVATION.



GROUND PLAN.



SECTION.



BEDROOM PLAN.

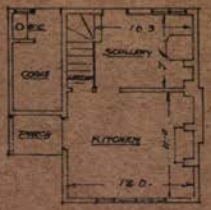
69-71.—Cottage by Mr. A. H. Clough, Castletop, Burley, Ringwood.

S. ELEVATION.

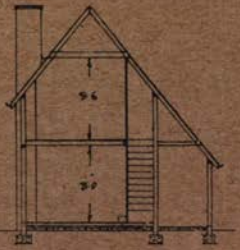
W. ELEVATION.

N. ELEVATION.

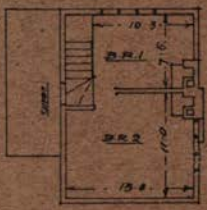
E. ELEVATION.



GROUND PLAN.



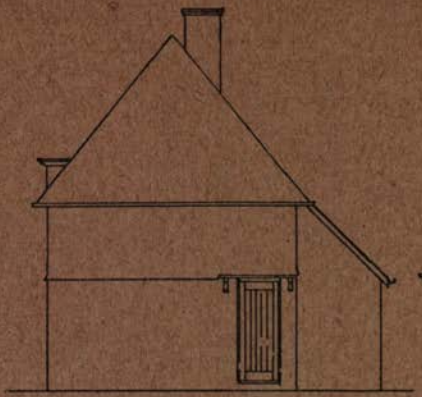
SECTION



B.R. PLAN.

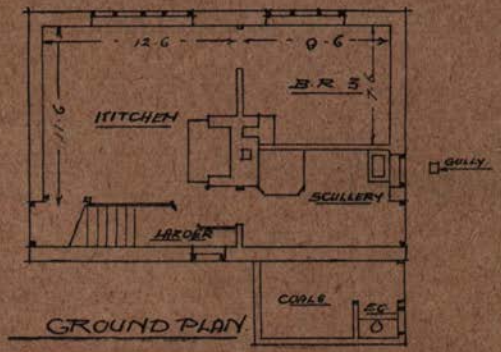
69-71.—Cottage by Mr. A. H. Clough, Burley, Ringwood, Hants.

FRONT ELEVATION.

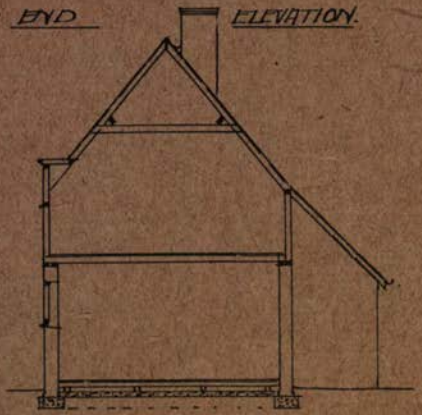


END ELEVATION.

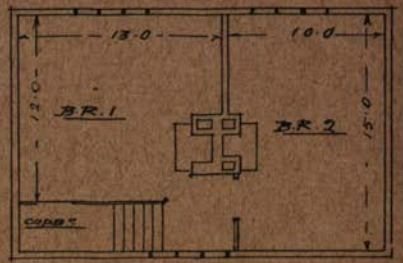
BACK ELEVATION.



GROUND PLAN

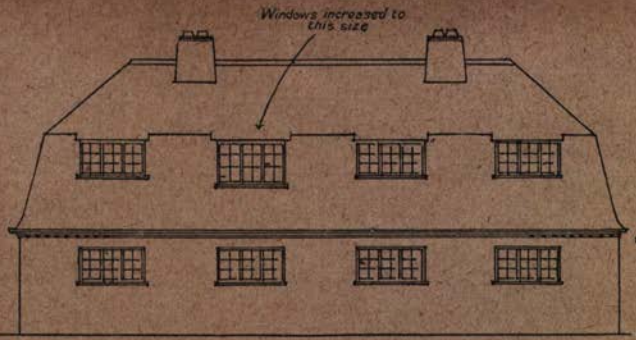


SECTION.



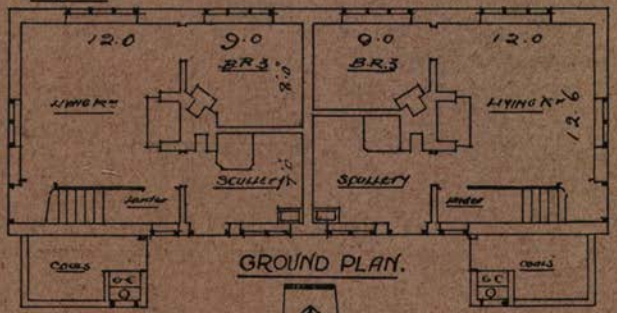
BEDROOM PLAN.

69-71.—Cottage by Mr. A. H. Clough, Castletop, Burley, Ringwood.

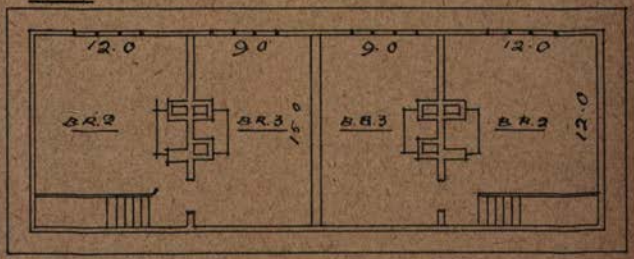


FRONT.

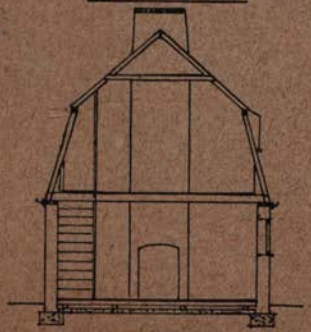
BACK.



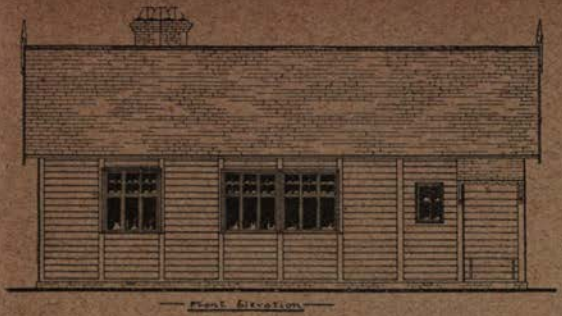
GROUND PLAN.

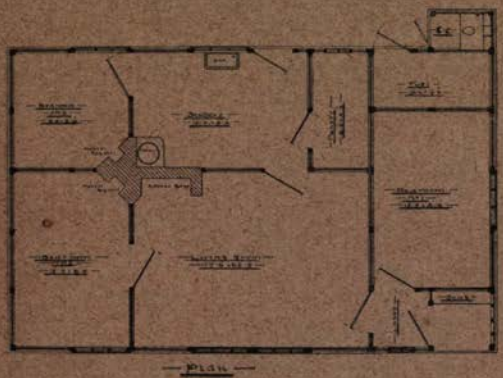


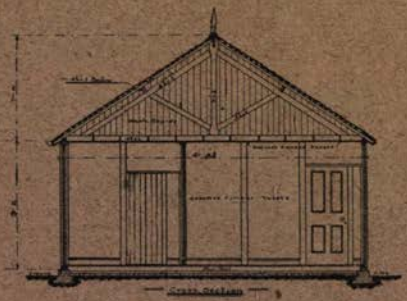
BEDROOM PLAN.

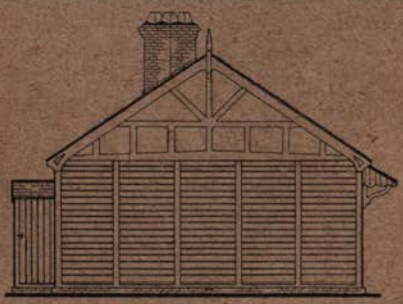


69-71.—Cottages by Mr. A. H. Clough, Castletop, Burley, Ringwood.

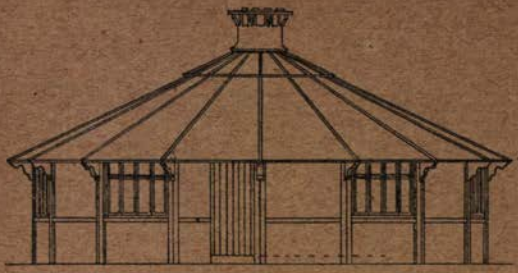




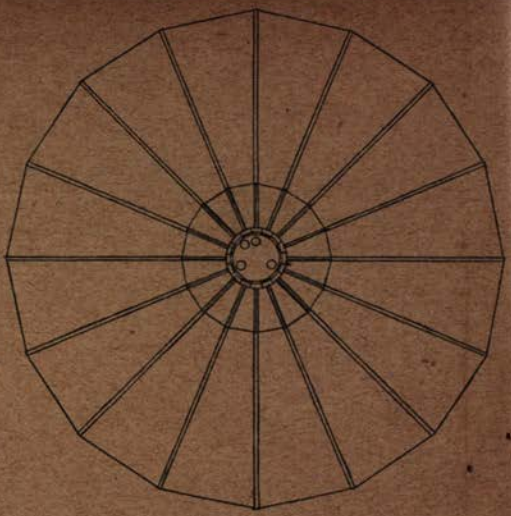




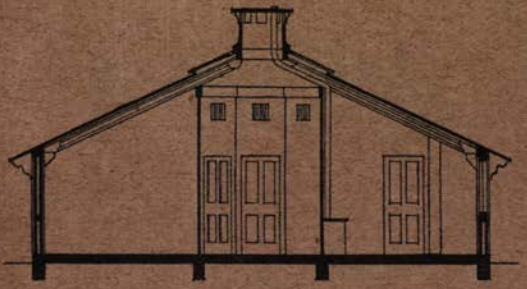
72.—Cottage by the Darlington Construction Company, Bank Top, Darlington.



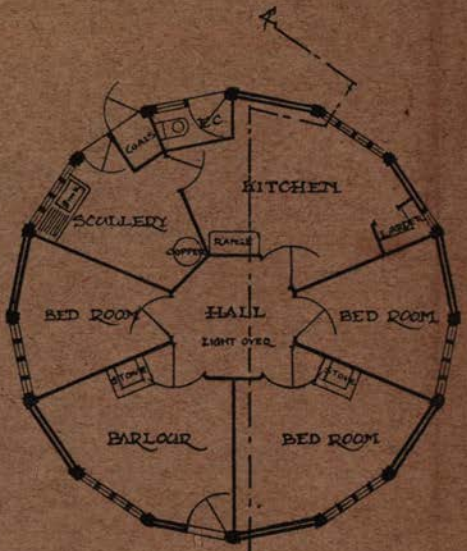
ELEVATION



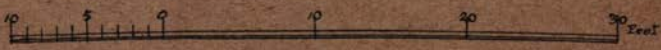
ROOF PLAN



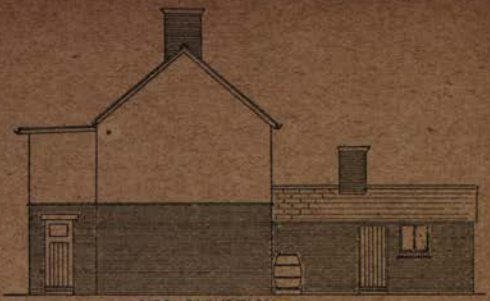
SECTION AA



GROUND FLOOR PLAN



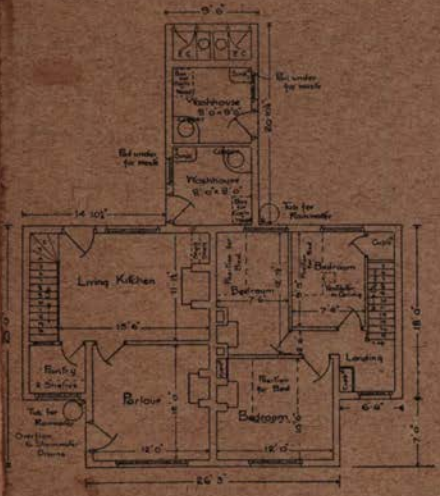
73.—Cottage by Messrs. Hesketh & Stokes, Architects, 110, Cheapside, E.C.
(Cubitt's Reinforced Concrete.)



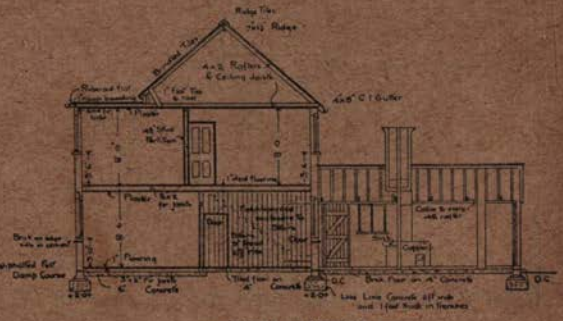
— SIDE ELEVATION —

— BACK ELEVATION —

— FRONT ELEVATION —



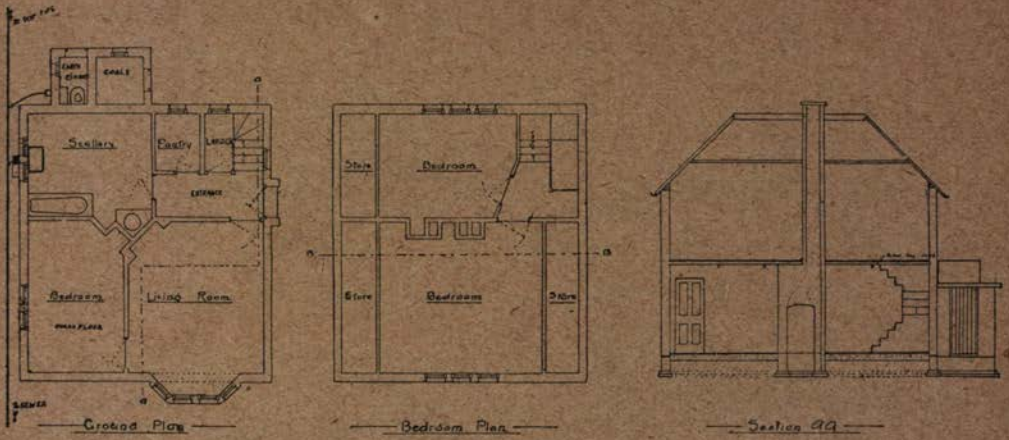
— HALF GROUND PLAN - HALF FIRST FLOOR —



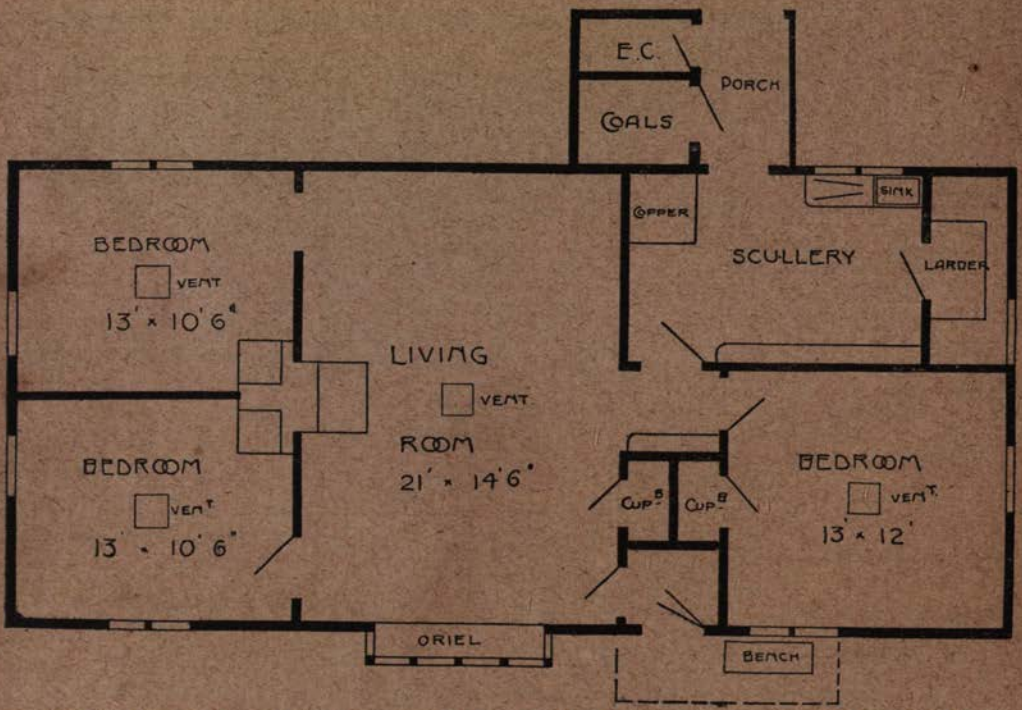
— CROSS SECTION —

74.—Cottage built by Mr. A. J. Bateman, Builder, Ramsey, Hunts. Architect, Mr. R. Johnston, F.S.I., 50, Moorgate Street, E.C.

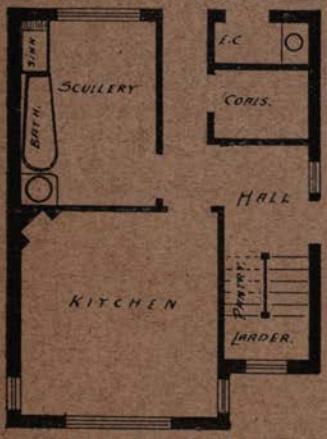
M



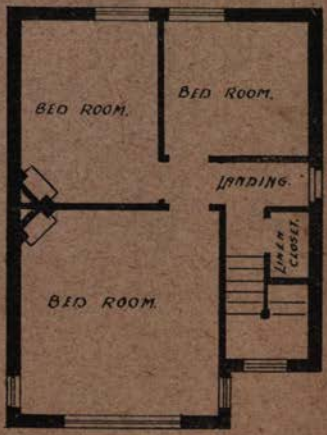
76.—Cottage by Mr. Ernest Clarke, Snow Hill, Melton Mowbray.



77.—Cottage by the Wire-wove Roofing Company, 108, Queen Victoria Street, London, E.C.

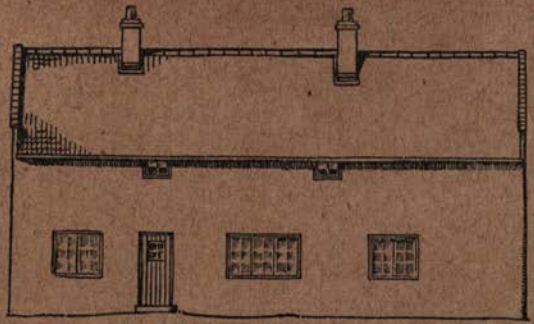


GROUND PLAN.



CHAMBER PLAN.

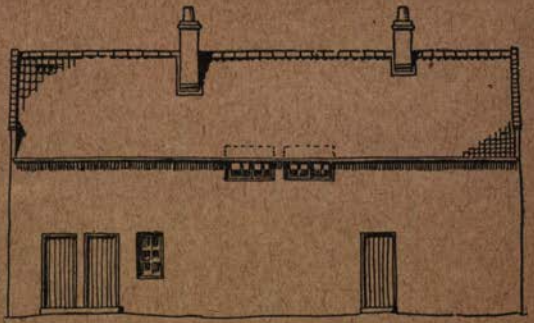
78.—Cottage built by Mr. E. H. Sneyd, Basford Park Road, Stoke-on-Trent. Architect, Mr. T. H. James, Basford.



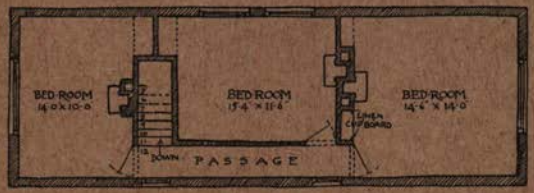
SOUTH·ELEVATION

DETACHED·COTTAGE
NORTON·ROAD·THE
GARDEN·CITY
150£ CLASS·IN
CHEAP·COTTAGE·
COMPETITION

A·RANDALL WELLS
CORNWALLIS·GDS
HASTINGS
ARCHITECT



NORTH·ELEVATION



FIRST·FLOOR·PLAN

GROUND·FLOOR·PLAN

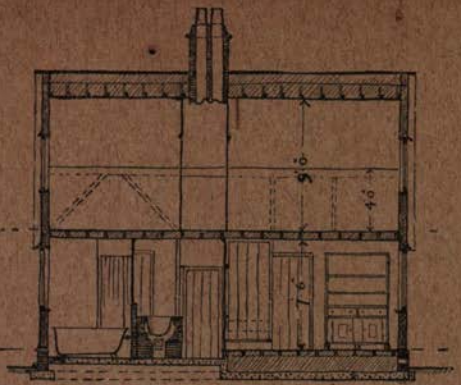
SECTION A-B

EAST·ELEVATION

WEST·ELEVATION

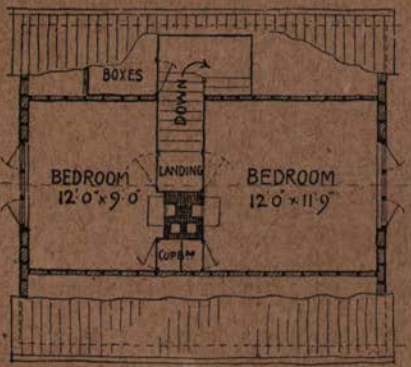
79.—Cottage by Mr. A. Randall Wells.

SOUTH FRONT

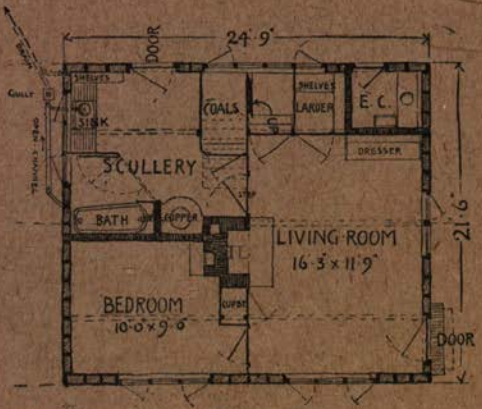


LONG SECTION

CROSS SECTION



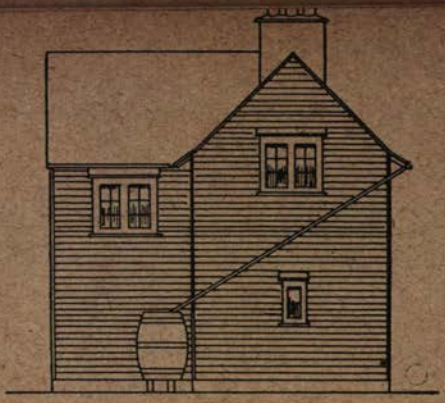
UPPER FLOOR



GROUND FLOOR

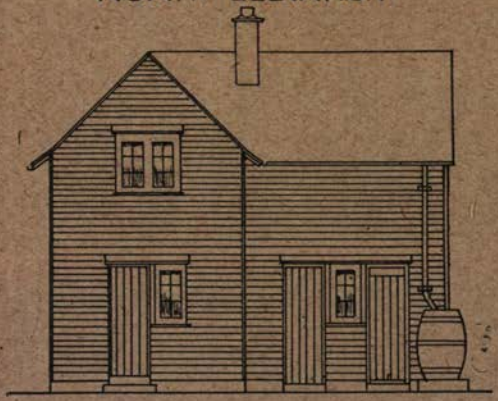
EAST END

80.—Cottage by Mr. F. W. Troup, Architect, 14, Gray's Inn Square, W.C.

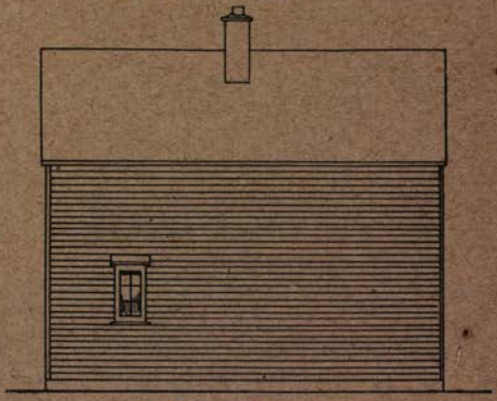


NORTH ELEVATION.

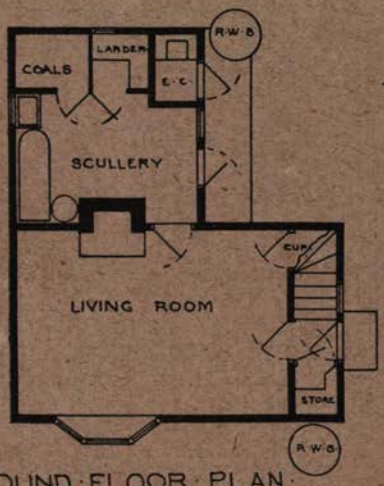
SOUTH ELEVATION.



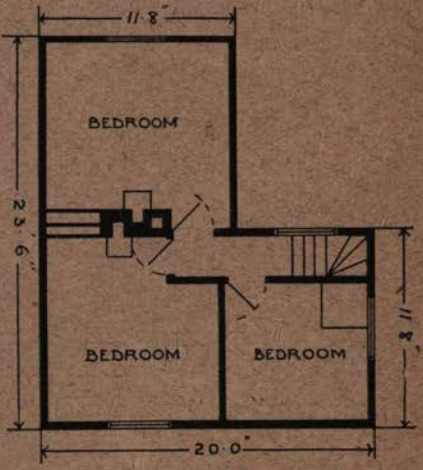
EAST ELEVATION



WEST ELEVATION.



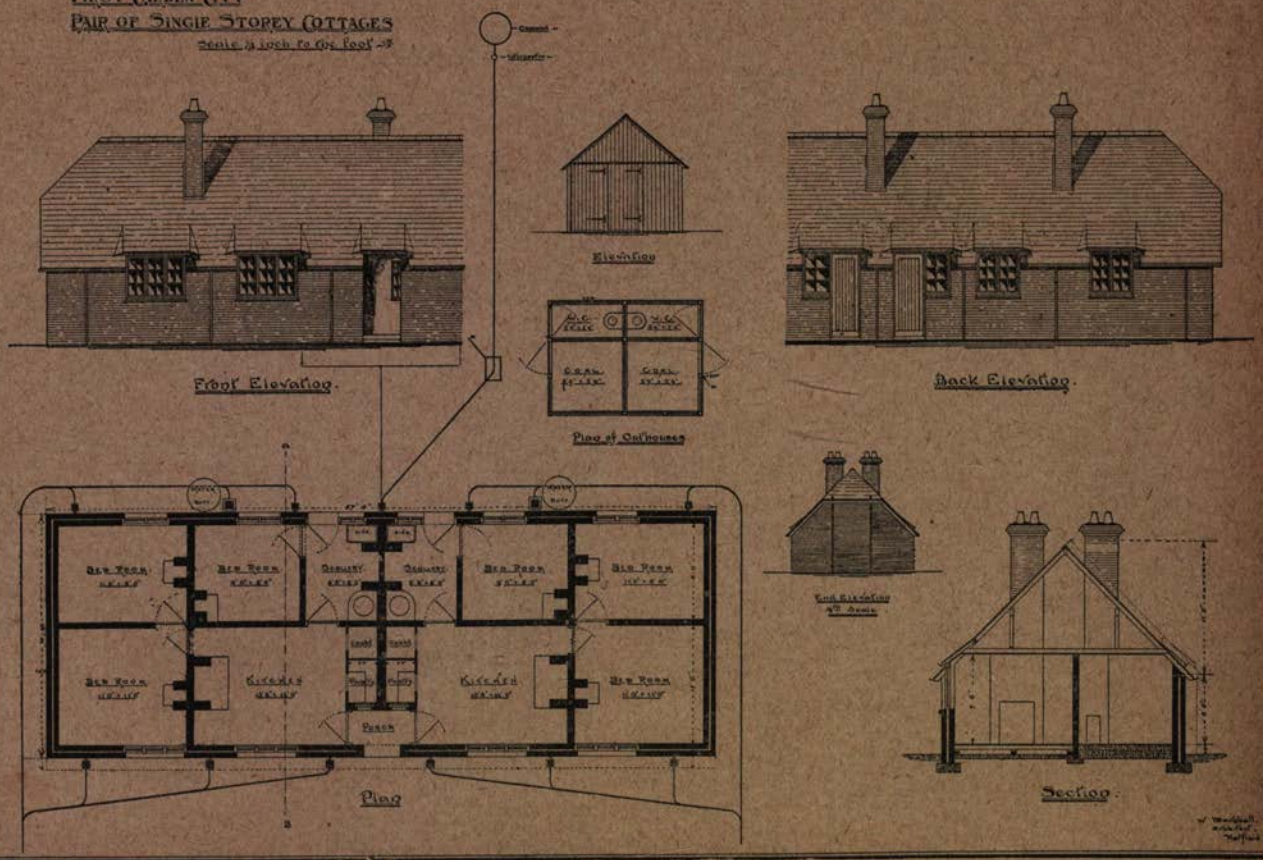
N.



GROUND FLOOR PLAN.

1ST. FLOOR PLAN

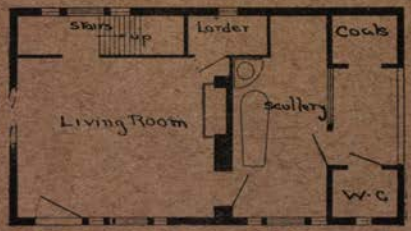
81.—Cottage by Messrs. Smith and Brewer, Architects, 2, Gray's Inn Square, W.C.



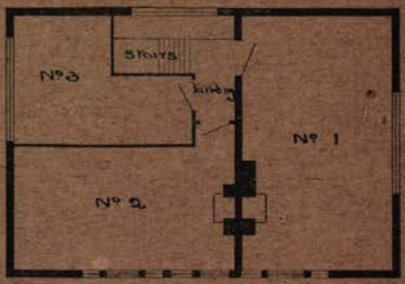
83.—Cottages built for the Marquis of Salisbury. Architect, Mr. W. Marshall, Hatfield.

ELEVATION

ELEVATION



GROUND · FLOOR · PLAN



BEDROOM · PLAN

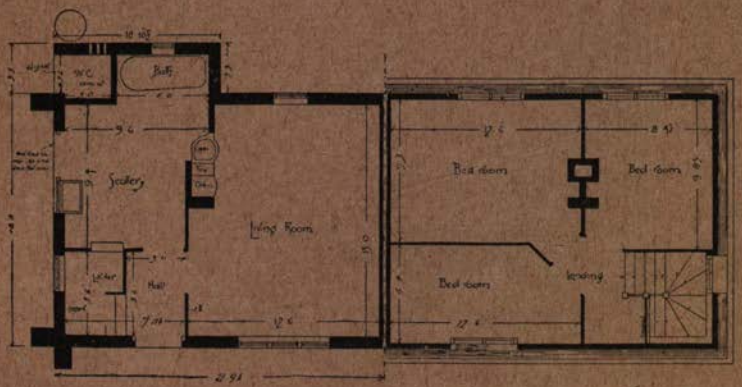
Scale ½ of inch to One foot

85.—Cottage by the Society of Artists, 52, New Bond Street, W.

Front Elevation

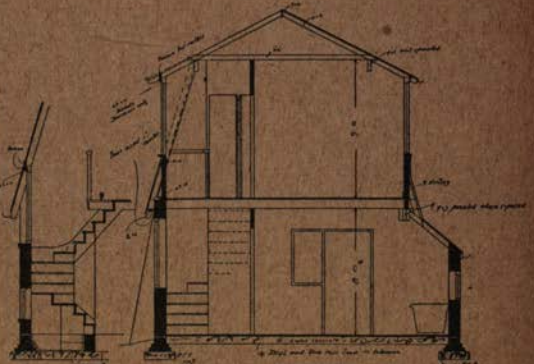
Side Elevation

Back Elevation



Ground Floor Plan

First Floor Plan

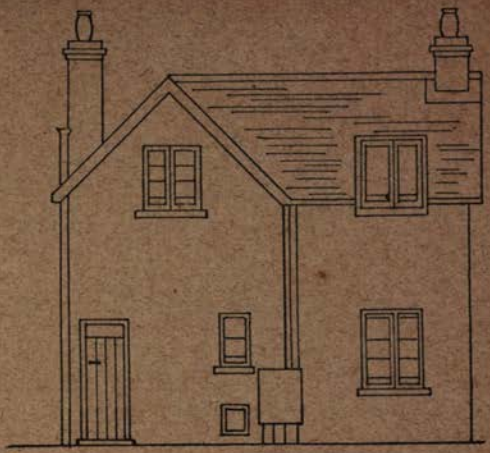


Section thro Stairs

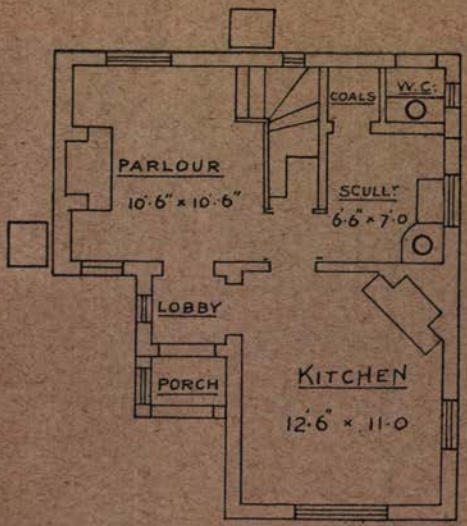
Section

[See Map.] Plan of 22 Cottages at Letchworth. Mr. V. Dunkerley, Architect, 8, Frederick's Place, Old Jewry, E.C.

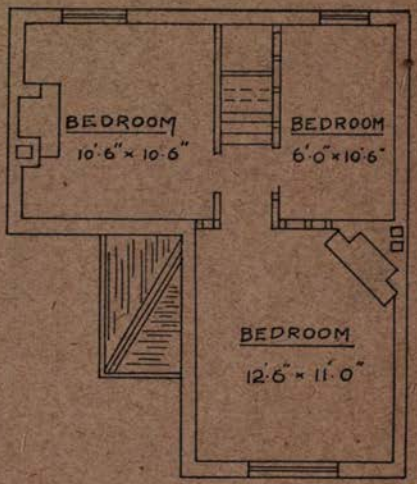
FRONT ELEVATION



BACK ELEVATION



GROUND PLAN



CHAMBER PLAN

COTTAGE BY MESSRS. WELLS & PRATT, HITCHIN.

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